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No. 138, ORIGINAL

In the
Supreme Court of the United States

STATE OF SOUTH CAROLINA,

Plaintiff,

v.

STATE OF NORTH CAROLINA,

Defendant.

On Motion for Leave to File Bill of Complaint

BRIEF OF THE STATE OF NORTH CAROLINA IN OPPOSITION

ROY COOPER
Attorney General
State of North Carolina
Christopher G. Browning, Jr.*
James C. Gulick
J. Allen Jernigan
Marc D. Bernstein
Jennie W. Hauser

North Carolina
Department of Justice
Post Office Box 629
Raleigh, N.C. 27602
(919) 716-6900

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*Counsel of Record

QUESTION PRESENTED

Whether the Court should grant South Carolina leave to file a Bill of Complaint seeking equitable apportionment of the waters of the Catawba River given that: (1) the flow of the Catawba River into South Carolina is currently being addressed in proceedings before the Federal Energy Regulatory Commission and (2) the Bill of Complaint does not identify any threatened invasion of South Carolina's rights.

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JURISDICTION

South Carolina invokes this Court's original jurisdiction under Article III, Section 2, of the United States Constitution and 28 U.S.C. § 1251(a) (2000). *See* Bill of Compl. ¶ 7.

STATEMENT

Introduction

South Carolina seeks leave to file a Bill of Complaint against North Carolina to have this Court equitably apportion the Catawba River. Br. in Supp. of Mot. for Leave to File Bill of Compl., p. 14. South Carolina further seeks to enjoin interbasin transfers of water from the Catawba River. Bill of Compl., Prayer for Relief, ¶ 2.

The Catawba River originates in the Appalachian Mountains of North Carolina near Asheville. The river runs for approximately 150 miles through North Carolina before it forms a 10 mile stretch of the border between North and South Carolina at Lake Wylie. The Catawba River then continues for roughly 60 miles through South Carolina until it flows into the Wateree River near Columbia, South Carolina. Water from the Wateree River flows into the Santee River and eventually reaches the Atlantic Ocean.

The flow of the Catawba River is controlled by a series of 11 dams and reservoirs operated by Duke Energy – six in North Carolina, one at the North Carolina/South Carolina border, and four in South Carolina. Decl. of Fransen, app. 4a. These reservoirs allow Duke Energy to generate hydroelectric power and supply cooling water for its two nuclear power

plants and three coal-fired plants in the Catawba River basin. Lake Wylie, formed by the seventh dam along the Catawba River, is located on the border between North Carolina and South Carolina. The flow of water from the Catawba River into South Carolina is therefore controlled by the Lake Wylie dam. *Id.* at 4a-5a.

Duke Energy Relicensing

In 1958, the Federal Power Commission – now the Federal Energy Regulatory Commission ("FERC") – originally licensed the 11 dams operated by Duke Energy on the Catawba River. *Duke Power Co.*, 20 F.P.C. 360 (1958). This license is for a period of 50 years and expires in August 2008. *Id.*; *accord* Decl. of Fransen, app. 5a; Decl. of Reed, app. 55a. Under this license, Duke Energy is required to release a minimum of 411 cubic feet per second ("cfs") into South Carolina from the Lake Wylie dam. Decl. of Reed, app. 58a.

In February 2003, Duke Energy began the process of relicensing these 11 dams ("the Catawba-Wateree Hydro Project"). Decl. of Reed, app. 55a. That process included conducting detailed modeling of the flow of the Catawba River. Decl. of Fransen, app. 5a-6a, 9a. This modeling takes into account anticipated water uses and withdrawals from the river through the Year 2058. *Id.* As part of its relicensing process, Duke Energy sought to include all stakeholders in an effort to build a consensus concerning the terms of a new license for these dams. Decl. of Reed, app. 55a-57a. One of the central issues in that process concerns flow of the river during times of drought. Decl. of Morris, app. 42a. During 1998-2002, the Catawba River basin experienced the most severe drought in the last 75

years. Decl of Fransen, app. 6a. This drought produced hardship in both North Carolina and South Carolina. Decl. of Morris, app. 41a-45a.

The discussions and negotiations between Duke Energy and the stakeholders ultimately led to a Comprehensive Relicensing Agreement ("CRA") that was signed by Duke Energy and 69 stakeholders in the Summer of 2006 and amended in December 2006.[1] Decl. of Reed, app. 57a, 59a, 60a. The signatories to the CRA include the South Carolina Department of Natural Resources; the North Carolina Department of Environment and Natural Resources; the South Carolina Department of Parks, Recreation and Tourism; Camden, S.C.; Rock Hill, S.C.; Kershaw County, S.C.; and Bowater, Inc. Decl. of Reed, app. 59a-60a. The CRA constitutes a request by its signatories that FERC grant Duke Energy a license, subject to the terms and conditions of the CRA, for the Catawba-Wateree Hydro Project. Decl. of Fransen, app. 6a; Decl. of Reed, app. 57a-58a.

The CRA, if its terms are adopted by FERC, provides substantial protections to South Carolina. Under the CRA, the minimum flow from the Lake Wylie dam would be increased from 411 cfs to 1,100 cfs in the absence of drought conditions. Decl. of Reed, app. 57a-58a. The CRA provides that in a Stage 1 drought, Duke Energy would be required to release a minimum of 860 cfs at the Lake Wylie dam. Decl. of Fransen, app. 7a. During a Stage 2 drought, Duke

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[1]Excerpts of the CRA are set out in the declarations of Fransen and Reed. The entirety of the agreement is available at http://www.duke-energy.com/pdfs/comp_relicensing_agreement.pdf.

Energy would be required to release a minimum of 720 cfs at the Lake Wylie dam. *Id.* During a Stage 3 drought, Duke Energy would be required to release a minimum of 700 cfs. *Id.* Thus, the CRA ensures that even under the severe drought conditions, South Carolina will receive a much greater minimum flow than is required under Duke Energy's current license.

The minimum flow of 1,100 cfs into South Carolina, along with all of the other terms of the CRA, was a negotiated compromise. Decl. of Reed, app. 57a-58a. This compromise also included an understanding that North Carolina would, over the course of the new license, make additional interbasin transfers of water from the Catawba River to North Carolina communities that lacked sufficient water supplies. Decl. of Fransen, app. 9a-10a. Specifically, the CRA includes a chart of the projected water withdrawals. *Id.* This chart includes all of the interbasin transfers that are the subject of South Carolina's motion. *Id.* The signatories acknowledge that even with these interbasin transfers, the model shows that the flow into South Carolina is "expected to meet existing and projected future (Year 2058) water use needs." *Id.* (quoting CRA).

The CRA also sets out a Low Inflow Protocol for entities that use or withdraw water from the Catawba River basin. Decl. of Fransen, app. 6a-7a; Decl. of Reed, app. 58a. This protocol requires communities to implement specific water conservation measures during times of drought. Decl. of Reed, app. 58a. Those measures become more stringent as drought conditions become more severe. *Id.* The Low Inflow Protocol is based on the principle that all water users must share the responsibility to conserve water during drought conditions. Decl. of Reed, Attach. A, app. 63a.

During the 1998-2002 drought, no such protocol was in existence to ensure water conservation.

Although Duke Energy filed its relicensing application with FERC on August 29, 2006, FERC has not yet ruled on that application. Decl. of Fransen, app. 12a; Decl. of Reed, app. 60a. It is anticipated that FERC will relicense Duke Energy's 11 dams prior to the expiration of the current permit in August 2008. Decl. of Reed, app. 61a.

North Carolina's Interbasin Transfers

North Carolina law precludes the transfer of more than two million gallons of water per day from one river basin to another without a permit. N.C. Gen. Stat. § 143-215.22I(a)(1) (2005).[2] In determining whether a permit should be granted, the North Carolina Environmental Management Commission ("NC EMC") must consider (1) the reasonableness of the transfer, (2) present and future detrimental effects

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[2]On August 2, 2007, the North Carolina General Assembly ratified House Bill 820. The bill repeals N.C. Gen. Stat. § 143-215.22I, the existing statute governing interbasin transfers, replacing it with a new N.C. Gen. Stat. § 143-215.22L. While the new statute retains many features of the existing regulatory scheme, it places additional requirements on applicants for interbasin transfers. As of the date of the filing of North Carolina's brief in this matter, the Governor had not signed the bill; therefore, it is not yet effective. However, the bill will become law, unless vetoed. N.C. Const. art. II, § 22, pt. 7.

on the river basins and (3) whether reasonable alternatives exist to the proposed transfer. N.C. Gen. Stat. § 143-215.22I(f) (2005).

In November 2004, the cities of Concord and Kannapolis, N.C. submitted a petition to the NC EMC for authority to withdraw water from the Catawba River basin and transfer that water to the Rocky River sub-basin. Decl. of Morris, app. 50a. That petition, as later amended by Concord and Kannapolis, sought a maximum transfer of 36 million gallons per day. *See* Decl. of Fransen, app. 19a.

The cities of Concord and Kannapolis were struck particularly hard by the drought of 1998-2002. Decl. of Hiatt, app. 23a-25a; Decl. of Legg, app. 31a-33a. These cities lie at the uppermost portion of the Rocky River sub-basin, a small watershed area. Accordingly, these cities can obtain only very limited yield from that watershed. Decl. of Hiatt, app. 23a, 28a; Decl. of Legg, app. 31a, 36a.

In August 2005, during the review process for the Concord and Kannapolis interbasin transfer petition, the South Carolina Department of Natural Resources ("SC DNR") informed North Carolina that the proposed interbasin transfer would not harm South Carolina. Specifically, an official with SC DNR informed Thomas Fransen of the North Carolina Division of Water Resources:

> As follow-up to our recent conversation . . . regarding the subject IBT [i.e., interbasin transfer], I've re-discussed the matter with

> [A.W. Badr][3] and our Division Director, and the consensus opinion is that the transfer is not large enough to be of concern to us. Besides, we get it back in the Pee Dee where we may need it more anyway. So, we have considered the proposed transfer and do not feel we are sufficiently aggrieved to warrant commenting on the permit application. Thanks for the info on it.

Decl. of Fransen, app. 18a (quoting SC DNR e-mail).

At its January 2007 meeting, the NC EMC approved a transfer by Concord and Kannapolis of not more than 10 million gallons per day from the Catawba River basin to the Rocky River sub-basin, which was less than a third of the cities' request. Decl. of Fransen, app. 19a. The certificate issued by the NC EMC requires Concord and Kannapolis to comply with drought restrictions virtually identical to the Low Inflow Protocol in the CRA. *Id.*

The transfer of 10 million gallons per day to Concord and Kannapolis constitutes less than 0.4% of the average flow of the Catawba River. Decl. of Fransen, app. 16a. In contrast, evaporation from cooling water used at Duke Energy's nuclear and coal-fired plants on the Catawba River consumes 5.2% of the average flow of the river. Decl. of Morris, app. 49a. Energy generated from these power plants benefits residents of both South Carolina and North Carolina.

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[3]Despite his original opinion that the subject interbasin transfer does not harm South Carolina, Badr has submitted an affidavit in support of South Carolina's motion for leave to file a Bill of Complaint.

Notwithstanding South Carolina's acknowledgment in the CRA that this interbasin transfer would not impact the ability of the Catawba River to meet current and projected water use needs through the Year 2058, South Carolina filed its motion for leave to file a Bill of Complaint on June 7, 2007. South Carolina's Bill of Complaint seeks to permanently enjoin the interbasin transfer to Concord and Kannapolis and requests an equitable apportionment of the Catawba River.

Additionally, South Carolina has filed a separate application seeking to preliminarily enjoin North Carolina from issuing any permit for an interbasin transfer from the Catawba River basin that was not approved on or before June 7, 2007. Contemporaneously with the filing of this Brief in Opposition, North Carolina is filing a response to that application.

SUMMARY OF ARGUMENT

The Court should refrain from granting South Carolina leave to file a Bill of Complaint given the pendency of proceedings currently before FERC that will substantially, if not entirely, resolve the present dispute.

Duke Energy is currently undergoing a comprehensive relicensing of the 11 dams it operates on the Catawba River, including the Lake Wylie dam that controls the flow of the river into South Carolina. As part of the FERC relicensing process, Duke Energy, South Carolina and North Carolina (through their respective agencies) have filed a submission with FERC that requests FERC to increase substantially

the minimum flow at the Lake Wylie dam into South Carolina.

Should this request be adopted by FERC, all of South Carolina's complaints concerning past droughts (particularly the drought of 1998-2002) become irrelevant. South Carolina's motion concedes that the Catawba River has ample water for interbasin transfers when drought conditions are not in effect. Moreover, under the terms that have been proposed to FERC, during drought conditions, Duke Energy will be required to release into South Carolina a minimum flow from the Catawba River that is almost double the current requirement. Thus, the FERC proceedings will impact substantially the very issue upon which South Carolina bases its complaint – the minimum flow of the Catawba River into South Carolina.

Declining to hear South Carolina's complaint at this time would be particularly appropriate given that South Carolina's Bill of Complaint relies almost exclusively upon the compromise that was negotiated between Duke Energy, South Carolina, North Carolina and other stakeholders in the FERC process. Specifically, South Carolina asserts that it should be entitled to 1,100 cfs of water from the Catawba River. Bill of Compl. ¶ 14. This argument is based on a specific section of a negotiated settlement that has been submitted to FERC – a proposal on which FERC has not yet acted. Accordingly, it would be premature for South Carolina to base its complaint upon a proposed term to a FERC license that has not yet been issued.

Finally, South Carolina has not demonstrated a threatened invasion of its rights by North Carolina. South Carolina has merely alleged that the Catawba River produces less water in times of drought. South

Carolina's allegation does not demonstrate an actual or threatened invasion of South Carolina's rights and does not constitute a claim of such serious magnitude so as to justify invoking this Court's original jurisdiction.

ARGUMENT

THE MOTION FOR LEAVE TO FILE A BILL OF COMPLAINT SHOULD BE DENIED

Article III of the Constitution provides that this Court shall have original jurisdiction over a limited number of disputes, including those "in which a State shall be Party." U.S. Const. art. III, § 2; *see* 28 U.S.C. § 1251(a) (2000). This Court has repeatedly recognized that, even when this Court has exclusive original jurisdiction, it has substantial discretion to decline to exercise that jurisdiction. *See, e.g.*, *Mississippi v. Louisiana*, 506 U.S. 73, 76-77 (1992); *Wyoming v. Oklahoma*, 502 U.S. 437, 450 (1992). This discretion is exercised "with an eye to promoting the most effective functioning of this Court within the overall federal system." *Texas v. New Mexico*, 462 U.S. 554, 570 (1983).

This Court should therefore be "reluctа[nt] to exercise original jurisdiction in any but the most serious of circumstances." *Nebraska v. Wyoming*, 515 U.S. 1, 8 (1995). Accordingly, leave to file a complaint in an original action should be granted only in "appropriate cases." *Wyoming v. Oklahoma*, 502 U.S. at 451. As the Court explained:

> "[T]he question of what is appropriate concerns, of course, the seriousness and

> dignity of the claim; yet beyond that it necessarily involves the availability of another forum where there is jurisdiction over the named parties, where the issues tendered may be litigated, and where appropriate relief may be had."

Id. (quoting *Illinois v. City of Milwaukee*, 406 U.S. 91, 93 (1972)). The Court makes "sparing use of [its] original jurisdiction so that [the Court's] increasing duties with the appellate docket will not suffer." *Illinois v. City of Milwaukee*, 406 U.S. at 94; *accord California v. Texas*, 457 U.S. 164, 168 (1982). Original jurisdiction is "'of so delicate and grave a character that it was not contemplated that it would be exercised save when the necessity was absolute.'" *Mississippi v. Louisiana*, 506 U.S. at 76 (quoting *Louisiana v. Texas*, 176 U.S. 1, 15 (1900)).

The Court should deny South Carolina's motion for leave to file a bill of complaint. South Carolina's complaint does not set out an "appropriate case." First, the issue upon which South Carolina bases its complaint (the flow of the Catawba River) is currently being addressed in proceedings before FERC. Second, South Carolina has not demonstrated a threatened invasion of its rights.

I. PROCEEDINGS CURRENTLY BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION WILL DETERMINE THE WATER FLOW OF THE CATAWBA RIVER INTO SOUTH CAROLINA.

In its motion, South Carolina concedes that, in the absence of drought, ample water exists in the Catawba

River to accommodate all current and anticipated consumptive uses, including the interbasin transfers that are the subject of South Carolina's motion for leave to file a complaint. *See* Mot. for Leave to File Bill of Compl., app. 14 [hereinafter "Compl. Mot."] (affidavit of A.W. Badr) ("Most of the time, there will be ample water in the system so that water transfers out of the basin will not be harmful to South Carolina . . . ."). In his affidavit, Badr states that South Carolina did not receive an adequate flow of water from the Catawba River during the drought of 1998-2002. *Id.* at 15-16. Badr, however, recognizes that this was "mainly because [Duke Energy] did not release as much water from [its] lakes as flowed into them." *Id.* at 16.

The flow of water from the Catawba River into South Carolina is effectively controlled by Duke Energy at its Lake Wylie dam, which lies on the border between North and South Carolina. Decl. of Fransen, app. 4a-5a. Duke Energy's current FERC permit requires a minimum release from the Lake Wylie dam of 411 cfs. Decl. of Reed, app. 58a.

As Badr's affidavit tacitly acknowledges, during the 1998-2002 drought, Duke Energy chose to retain as much water as possible in order to have sufficient reserves to generate electricity. Compl. Mot., app. 16. Thus, Badr's chart of measured daily flow of the Catawba River shows many days in 2001 when the flow into South Carolina approached the minimum flow requirement of Duke Energy's FERC license (411 cfs). *Id.* at 20.

Because Duke Energy's current license expires in August 2008, proceedings currently before FERC will determine the amount of water that is released from the Lake Wylie dam into South Carolina. This

relicensing process involves substantial input from stakeholders and other interested parties. Decl. of Reed, app. 55a-57a. In the Summer of 2006, Duke Energy and 69 stakeholders (including various South Carolina agencies and local governments) entered into a Comprehensive Relicensing Agreement ("CRA") for the Catawba-Wateree Hydro Project. Decl. of Reed, app. 57a, 59a. The CRA spans 501 pages and sets out detailed provisions and requirements that the signatories are asking FERC to incorporate into Duke Energy's license to operate these dams. The CRA constitutes a negotiated compromise of the many interests of the 70 parties to the agreement. Decl. of Reed, app. 57a-58a. Part of that compromise includes specific provisions addressing the quantity of water that flows into South Carolina.

The CRA, if its terms are accepted by FERC, will substantially increase the minimum flow of the Catawba River into South Carolina. While Duke Energy's current license provides for a minimum flow of 411 cfs at the Lake Wylie dam, the CRA would provide for a minimum flow of 1,100 cfs.[4] Decl. of

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[4]In its motion, South Carolina asserts that it should be entitled to 1,100 cfs from the Catawba River as measured 3.5 miles downstream of the Lake Wylie dam. *See* Bill of Compl. ¶ 14; Br. in Supp. of Mot. for Leave to File Bill of Compl., app. 15, 20. South Carolina, however, neglects to inform the Court that it withdraws substantial quantities of water upstream of this measuring point. Specifically, South Carolina withdraws 57 million gallons per day from Lake Wylie, which runs along the border between North Carolina and South Carolina. Decl. of

Reed, app. 57a-58a. Moreover, even during a Stage 3 drought, the CRA would ensure that the amount of water Duke Energy releases from the Lake Wylie dam would be almost double the amount that Duke Energy was required to release during the 1998-2002 drought. Decl. of Fransen, app. 7a. Specifically, during a Stage 3 drought, Duke Energy must release a minimum of 700 cfs from the Lake Wylie dam. *Id.*

Thus, should the CRA be accepted by FERC, the flow of water into South Carolina will be substantially greater than in recent droughts. In fact, South Carolina, through its agencies, has "acknowledge[d] that modeling and evaluation have predicted that . . . the flow releases anticipated [into South Carolina] are expected to meet existing and projected future (Year 2058) water use needs" should the terms of the CRA be adopted by FERC. Decl. of Fransen, app. 9a-10a. Moreover, at the time this acknowledgment was signed by various South Carolina agencies and local governments, the signatories knew and understood that these projections took into account all of the interbasin transfers that are the subject of South Carolina's Bill of Complaint. Decl. of Fransen, app. 9a.

South Carolina's complaint is premised upon the argument that, unless North Carolina's current interbasin transfers are set aside, South Carolina will not receive an adequate flow of water in the event of a severe drought. In support of this argument, South Carolina describes the flow of the river at the South Carolina border during the 1998-2002 drought – the worst drought in over 75 years. The flow of the river at that time, however, is largely irrelevant. Both Duke

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Fransen, app. 17a.

Energy and 69 stakeholders have asked FERC to impose license conditions that will require Duke Energy to release a much greater flow of water from Duke Energy's reservoir at the South Carolina border. Should this license condition be adopted by FERC, South Carolina is assured of receiving substantially greater flow, even in times of drought.[5]

Thus, the FERC proceeding stands as a forum that can substantially resolve the matters in dispute. *See Mississippi v. Louisiana*, 506 U.S. 73, 77 (1992). The comments Bowater, Inc. recently filed with FERC illustrate this point. In its motion for leave to file a Bill of Complaint, South Carolina describes at length the impact of the 1998-2002 drought on Bowater. In its submissions to FERC, Bowater, however, urges FERC to adopt the terms of the CRA and asserts that the proposed licensing terms will allow for sufficient flow of water into South Carolina:

> From Bowater's perspective, the CRA achieves adequate and predictable flow releases from the Wylie Hydro that support the raw water quantity needs and discharge permit requirements for our facility located in Catawba, South Carolina which is one of the

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[5]Under the CRA, the minimum flow into South Carolina would be increased from the existing minimum flow of 411 cfs by an additional 449 cfs during a Stage 1 drought (from 411 cfs to 860 cfs), 309 cfs during a Stage 2 drought (from 411 cfs to 720 cfs) and 289 cfs during a Stage 3 drought (from 411 cfs to 700 cfs). Decl. of Fransen, app. 7a. This additional flow dwarfs the water needed for interbasin transfers in North Carolina.

> largest coated paper mills in the world. In addition, the long-range planning embodied in the Water Supply Study and in the Low Inflow Protocol provides Bowater as well as the entire Catawba-Wateree Basin with a level of drought protection that has not existed before.

Decl. of Fransen, app. 11a (quoting Bowater's FERC submission).

The FERC proceeding stands to substantially, and perhaps entirely, address the issue that South Carolina has raised in this action (i.e., the minimum flow of the Catawba River into South Carolina). Should FERC implement license terms inconsistent with the CRA, FERC's determination may be appealed to either the United States Court of Appeals for the Fourth Circuit or the United States Court of Appeals for the District of Columbia. 16 U.S.C. § 825*l* (2000).

Additionally, even assuming that the FERC decision does not resolve South Carolina's problem, it would be premature for this Court to accept South Carolina's complaint until the FERC relicensing process is complete. Until a license is issued by FERC, both South Carolina and North Carolina will be forced to argue to this Court the meaning and significance of an agreement (the CRA) that may or may not be adopted by FERC. *See* Bill of Compl. ¶ 14 (relying upon 1,100 cfs set out in CRA).

South Carolina's Bill of Complaint relies upon a negotiated compromise between North Carolina, South Carolina and various interested parties in a FERC proceeding. *Id.* Notwithstanding the delicate balance of this compromise, South Carolina is asking this Court to accept the portion of the compromise that South Carolina likes (a minimum flow of 1,100 cfs),

while throwing out the portion of the compromise it dislikes (the interbasin transfers referenced in the compromise). Thus, South Carolina relies on the CRA in representing to this Court the flow of water from the Catawba River that it believes it should be allocated. South Carolina, however, ignores the fact that a part of the compromise of the CRA was an acknowledgment that the Catawba River has sufficient flow to sustain the interbasin transfers at issue without impacting other current and projected uses of the river. A determination of the meaning and effect of the CRA, however, would be premature until such time as FERC acts on that agreement.

The judicial resources of this Court would be largely wasted if South Carolina's complaint is accepted at this stage and the parties are required to base their arguments upon a FERC license that has not yet been issued.

II. SOUTH CAROLINA HAS NOT DEMONSTRATED A THREATENED INVASION OF ITS RIGHTS.

South Carolina makes the conclusory allegation that transfers of water from the Catawba River by Charlotte, Concord and Kannapolis, N.C. "exceed North Carolina's equitable share of the Catawba River." Bill of Compl. ¶ 4. South Carolina purports to bolster this allegation by asserting that in the FERC relicensing of the Catawba-Wateree Hydro Project, it was agreed by stakeholders that the flow of water into South Carolina should be 1,100 cfs. Bill of Compl. ¶ 14 (relying upon CRA). The Complaint further alleges that in its natural state, the Catawba River would often not deliver 1,100 cfs. Bill of Compl. ¶ 16.

The gist of South Carolina's complaint is that the Catawba River produces less water in times of drought – the exact same condition that occurs in North Carolina. In fact, consumptive uses in North Carolina are small compared to the overall flow of the Catawba River. By far the most significant influences on downstream flows are climatic factors such as drought, and the operation by Duke Energy of its hydroelectric facilities under license by FERC.

The impacts about which South Carolina complains were the result of drought, and not any actions of North Carolina. In fact, during the period in question, North Carolina communities suffered equally if not more than did South Carolina. For example, Lake Rodhiss, which supplies water for the towns of Valdese, Granite Falls and Lenoir, North Carolina, suffered an algal bloom that began in 2001 and continued into 2002, resulting in taste and odor complaints from water users. *Compare* Decl. of Morris, app. 43a, *with* Compl. Mot., app. 38 (declaration of Donna Lisenby) (water for Camden, S.C. had odor and taste problems). Lake Hickory, which supplies water for the City of Hickory, North Carolina, suffered an algal bloom in 2002 and also caused complaints from its water users. Decl. of Morris, app. 43a. Incidents, such as the one in Camden, S.C. about which South Carolina complains, are not uncommon during drought and do not render water unsafe to drink. *Id.* at 43a-44a.

Furthermore, boat ramps in North Carolina were closed by Duke Energy not only on Lake Wylie, but also on Lake James and Lake Norman (both of which lie wholly within North Carolina) due to the fact that the reservoir levels were so low as to create a safety hazard for boaters. Decl. of Fransen, app. 19a-20a.

Moreover, water shortages occurred in Cherryville, N.C. where in mid-August 2002, the town used an emergency pump on a flatbed trailer (provided by the North Carolina Division of Emergency Management) to pump water from a hydrant on the Lincoln County water system into a hydrant on the Cherryville water system. Decl. of Morris, app. 44a-45a. Immediately thereafter, Cherryville drilled an emergency well to provide adequate water supply for its population. *Id.* at 45a.

Of course, the severity of a drought is not in any party's control. But the operations of the hydroelectric facilities can be manipulated to mitigate drought impacts. Over the past few years, both States, learning from their experiences in 1998 to 2002, have sought to craft a new regime for the operation of the dams on the Catawba River in order to diminish the impacts of drought in both States in the future. Thus, although Bowater alleges that its manufacturing operations were impacted in 2002 by the drought, that same corporation has enthusiastically hailed the CRA as providing "adequate and predictable flow releases" that support Bowater's withdrawal and discharge needs and that are "sustainable into the future." Decl. of Fransen, app. 11a (quoting Bowater submission to FERC). Far from being the cause of South Carolina's woes, North Carolina was also a victim of the 1998-2002 drought, as well as a willing and motivated partner in successful efforts to address the situation.[6]

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[6]In addition to relying upon the harm created by the 1998-2002 drought, South Carolina also alleges, based on the report of A.W. Badr, that it would receive 1,100 cfs more frequently under the so-called "natural flow" of the

South Carolina appears to be blaming North Carolina for the fact that South Carolina did not get sufficient rainfall during 1998-2002. South Carolina merely suffered the effects of an extreme drought similar to the effects suffered by others in the region, including North Carolina. South Carolina's allegation simply does not constitute a claim of such serious magnitude so as to require relief from this Court. *See Nebraska v. Wyoming*, 515 U.S. 1, 8 (1995).

Should this Court grant South Carolina's motion for leave to file a Bill of Complaint, several million dollars of attorney and expert witness fees will be expended by the parties in bringing this matter to trial before a Special Master. Environmental regulators in both States will be diverted from their primary job of protecting the environment. More importantly, the resources of this Court should not be consumed by South Carolina based merely upon statements tending

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Catawba River. This analysis is unrealistic. Badr's "natural flow" assumes that North Carolina would consume absolutely no water from the river. It also assumes that the complex of hydropower dams would not exist. This is obviously not a valid basis for evaluation. *See* Decl. of Fransen, app. 12a-15a. Moreover, Badr's report focuses on flows in 2001 when Duke Energy was storing water in case the drought worsened. In the Fall of 2002, when the drought was at its worst, Duke Energy was able to use this stored water to provide South Carolina with enhanced flows that would not have been available even under the unrealistic expectations of the "natural flow" scenario. *See id.* at 14a-15a.

to show that five years ago the Catawba River basin experienced the worst drought in over 75 years.

CONCLUSION

The motion for leave to file a Bill of Complaint should be denied.

Respectfully submitted,

ROY COOPER
Attorney General of North Carolina

Christopher G. Browning, Jr.*
Solicitor General of North Carolina

James C. Gulick
Senior Deputy Attorney General

J. Allen Jernigan
Special Deputy Attorney General

Marc D. Bernstein
Special Deputy Attorney General

Jennie W. Hauser
Assistant Attorney General

August 7, 2007

*Counsel of Record

APPENDIX

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No. 138, Original

In the

Supreme Court of the United States

STATE OF SOUTH CAROLINA,

Plaintiff,

v.

STATE OF NORTH CAROLINA,

Defendant.

On Motion for Leave to File Complaint

DECLARATION OF THOMAS C. FRANSEN

I, Thomas C. Fransen, do hereby declare, certify, and state that:

1. Since November 1989 I have served as the Head of the River Basin Management Section of the Division of Water Resources ("the Division" or "DWR") for the North Carolina Department of Environment and Natural Resources ("DENR") (including predecessor entities).

2. I hold a Masters of Civil Engineering from North Carolina State University, a Bachelor of Science with a major in Civil Engineering from North Carolina State University and

a Bachelor of Arts from Carthage College (Wisconsin) with majors in Biology and Natural Sciences.

3. I have also served as an environmental engineer in the Hydrology and Management Section (now the River Basin Management Section) of the Division from May, 1984 to October, 1989.

4. In my present position as Head of DWR's River Basin Management Section, I provide professional and technical guidance and expertise to assist the State in coordinating the beneficial use and conservation of the State's surface water and groundwater. My responsibilities include providing technical and regulatory assistance to local governments, industry, farmers, etc. regarding compliance with State water resource planning and informational requirements, assisting the development of rules designed to reduce water use and conserve water during drought, providing technical support (including water use, reservoir level, and instream flow projections) for State involvement in Federal Energy Regulatory Commission ("FERC") licensing actions and management of U.S. Army Corps of Engineers and Tennessee Valley Authority dams, and assisting the State's Environmental Management Commission ("EMC") in implementing the State's interbasin transfer law and a variety of other water resource management laws and rules. My responsibilities routinely require me to interact with other federal, State, local, and Tribal governments, large and small businesses, and private citizens.

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5. The Division is North Carolina's governmental agency primarily charged with monitoring and managing the State's water resources, to ensure that the waters of North Carolina are developed and managed in a sustainable manner for the benefit of all water users.

6. Among its other duties, the Division serves as staff to the EMC regarding water resources management issues.

7. The Division, and specifically DWR's River Basin Management Section, receives any petitions made to the EMC for transfers of water between river basins as required by North Carolina General Statutes §143-215.22I. Currently, there are no petitions pending pursuant to this statute for any interbasin transfer from the Catawba River basin (or any other basin). I have periodic discussions with representatives from Union County, North Carolina regarding the County's water needs. It is my understanding that the County is exploring options other than transferring water out of the Catawba River basin and, if the County believes a transfer is necessary, it intends to limit the amount of that transfer to no more than the amount already authorized by South Carolina. In short, no additional regulated transfers from the Catawba River are imminent.

8. The Secretary of DENR has authority under North Carolina General Statutes §143-215.22I(j) to authorize temporary interbasin transfers for short-term emergencies. I am familiar with only one such authorization. That authorization did not involve the Catawba River basin

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(including the South Fork Catawba River Sub-basin) at all. There are no requests pending for temporary authorization to transfer water pursuant to section 143-215.22I(j).

9. I am personally familiar with the Catawba River and the Catawba River basin and have performed and been a part of significant research, analysis, and regulatory projects directly addressing or affecting flows in the Catawba River. (A part of the Catawba River in South Carolina is called the Wateree River. I will refer to it generally as the Catawba River.)

10. I am also personally familiar with various studies made of the Catawba River basin, and with various data that provide historic information about the Catawba River basin such as stream flow, precipitation, and use of the waters of the Catawba River.

11. Duke Energy Carolinas LLC ("Duke") owns and operates 11 hydroelectric dams on the Catawba River. All of these dams are on the main stem of the Catawba River. These facilities and other appurtenant lands, waters and improvements together are known as the Catawba-Wateree Project and are licensed by FERC as Project No. 2232. Six of those reservoirs are located entirely in North Carolina, four are located entirely in South Carolina, and one reservoir (Lake Wylie) straddles the North Carolina-South Carolina border. Because the Lake Wylie dam is in South Carolina and is the closest of the Catawba-Wateree dams to the border, the outflow

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from Lake Wylie can serve as an indicator of flow from the Catawba River-Wateree Project into South Carolina.

12. Data maintained by United States Geologic Survey ("USGS") shows that the average annual average daily flow of the Catawba River about 3.5 miles downstream from the Lake Wylie dam (USGS Gage No. 02146000) is 4,253 cubic feet of water per second ("cfs") (2,749 million gallons of water per day ("mgd")) for the 63 years for which data was available between October 1, 1896 to September 30, 2006, i.e. the period of record.

13. The FERC license for the Catawba-Wateree Project expires in 2008, and Duke is seeking a new 50-year license for the project (ending in 2058). For the past several years, many stakeholders worked closely to study various aspects of the Catawba-Wateree Project in order to create an appropriate record for relicensing. I personally participated in this FERC proceeding, along with other DWR staff, on behalf of DWR and DENR. South Carolina state agencies and Ms. Donna Lisenby of the Catawba Riverkeeper Foundation, Inc. also participated in this proceeding.

14. During the relicensing process for the Catawba-Wateree Project a high priority has been to determine if the basin could withstand the increased demands projected for the future, including larger water supply withdrawals (which may include interbasin transfers), increased releases from reservoirs for aquatic habitat, greater consumptive use of cooling water

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for electric power generation, and maintenance of critical reservoir elevations to assure operability of water supply intakes. Therefore, Duke worked with water supply users (including those in South Carolina) and other interested parties to project water needs between 2048 and 2058. From this effort HDR Engineering, Inc. of the Carolinas produced The Duke Energy Water Supply Study ("Water Supply Study"). The Water Supply Study independently concluded that all projected future demands on the Catawba River basin, including those of water users located in South Carolina, can be met for more than 40 years into the future without violating the critical reservoir elevations needed to assure the operation of pubic water supply sources. In particular, the Water Supply Study concluded that these future demands could be met even if the most severe drought of the 75-year period that was evaluated, i.e. the exceptional drought of 1998-2002, reoccurred.

15. The relicensing process resulted in a Comprehensive Relicensing Agreement ("CRA"). The signatories to the CRA have urged FERC to incorporate into the new license the specific provisions that the signatories drafted and upon which they all agreed.

16. If FERC adopts the CRA, Duke and the signatories to the CRA would be subject to a Low Inflow Protocol ("LIP") during drought conditions. As flow conditions in the basin worsen, the LIP would require water users to implement increasingly stricter drought management measures. In this

manner, the LIP would delay the point at which the Project's usable water storage is fully depleted while providing for the competing uses of the Project's waters, although in a reduced capacity as would be sensible in a drought.

17. Under the LIP, during times that water inflow is not adequate to meet all of the normal demands for water, Duke would reduce the volume of water it discharges for hydroelectric power generation and other instream uses. For example, under a Stage 1 low inflow condition (moderate drought), Duke may reduce releases from Lake Wylie to 860 cfs. Under a Stage 2 condition (severe drought), Duke may reduce Wylie releases to 720 cfs, and under Stage 3 (exceptional drought), 700 cfs. Similarly, public water suppliers would be required to implement demand reduction measures that become more stringent as the stage of the low inflow condition increases.

18. A Stage 4 condition under the LIP would be a catastrophic event and has never occurred during the period of record. Flows from Wylie would remain at 700 cfs only as long as inflow and stored water were available. The drought of record -- the 1998-2002 event -- would have only reached Stage 3 under the LIP.

19. The flow discharged from each of the hydroelectric plants on the Catawba River is controlled by Duke's release of water from the associated reservoir. For this reason the negotiation of the CRA, and in particular the LIP, was critical

to ensuring that Duke will provide adequate releases during low inflow conditions.

20. The CRA also would create a Catawba-Wateree Drought Management Advisory Group ("CW-DMAG") that would meet annually and more frequently in advance of and during low inflow periods. The South Carolina Department of Natural Resources ("SCDNR") and the South Carolina Department of Health and Environmental Control ("SCDHEC") have been invited to sit on the CW-DMAG (along with two North Carolina agencies). The CW-DMAG would serve as a forum to review low inflow practices and discuss program improvements.

21. During the relicensing proceedings, the stakeholders participated in the development by Devine Tarbell & Associates ("DTA") of a computer model of the waters of the Catawba River basin. The most recent version of the model -- known as the Computer Hydro-Electric Operations and Planning Software or "CHEOPS" -- was version 8.7, which was released in March 2006. This model was developed to describe the effects of water-quantity-related operational changes and physical modifications to the hydropower facilities operated by Duke in the Catawba River basin and to thereby allow stakeholders to explore the long-term impacts of different hydropower operating restrictions and LIP parameters. The CHEOPS model used a 75-year historical record of inflows for the Catawba River system from 1929 to 2003.

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22. CHEOPS version 8.7 (March 2006) was used by Duke to support its FERC license application and, in the process, to project the effects of the CRA. Thus, all signatories to the CRA were able to assess the impacts of the CRA on their future needs and operations by reviewing these CHEOPS runs.

23. Future river flow and reservoir levels were modeled based on the projection that net withdrawals from the Catawba River basin for all uses (in both North and South Carolina) would more than double between 2008 and 2058. These data were summarized in Appendix H of the CRA. Appendix H showed that net withdrawals in 2005 upstream of the Wylie dam were 226.8 mgd, and this is projected to increase to 524.9 mgd in 2058. (In 2005, 88.1 mgd of these net withdrawals were returned to the Catawba River below the Wylie dam; in 2058, 177.1 mgd are projected to be returned below Wylie.) Appendix H also showed that as of 2005 only 13 mgd were actually removed via interbasin transfer from the Catawba basin above Lake Wylie dam (despite authorization of greater amounts) and that this interbasin transfer amount was projected to be 85 mgd in 2058.

24. The CRA (section 5.3) includes the following statement:

> The Parties acknowledge that modeling and evaluation have predicted that, for the New License term, the flow releases anticipated from the Bridgewater, Wylie, and Wateree developments are

> expected to meet existing and projected future (Year 2058) water use needs, as identified in Appendix H, for intakes located in the downstream Regulated River Reaches below these developments. In addition, the modeling predicted that, during the New License term, the reservoir levels set forth in the proposed Reservoir Elevations License Article including Critical Reservoir Elevations identified in the Low Inflow Protocol (see Appendix C), are expected to meet the existing and projected future (Year 2058) water use needs, on a per-reservoir basis, as identified in Appendix H for water use needs located on the Project's reservoirs. These studies also predicted that the operating parameters contained in this Agreement, modeled using CHEOPS with the Low Inflow Protocol included in the model, provide reservoir levels and flows that are expected to meet at least the current minimum requirements to support water intake operations identified by the Licensee and the other water users as projected through the Year 2058. The Parties also acknowledge that those minimum requirements, along with facts, assumptions, and analytical capabilities may be subject to change and review during the term of the New License.

25. Bowater Inc. (Catawba, South Carolina) signed the CRA. On April 23, 2007, J.M. Forrest, Vice President of Catawba Operations for Bowater Inc., submitted a letter to the

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FERC docket for the Catawba-Wateree Project relicensing that read, in part, as follows:

> From Bowater's perspective, the CRA achieves adequate and predictable flow releases from Wylie Hydro that support the raw water quantity needs and discharge permit requirements for our facility located in Catawba, South Carolina which is one of the largest coated paper mills in the world. In addition, the long-range planning embodied in the Water Supply Study and in the Low Inflow Protocol provides Bowater as well as the entire Catawba-Wateree Basin with a level of drought protection that has not existed before.
>
> * * *
>
> The [Catawba-Wateree Relicensing Stakeholder] Team's [*sic*] studies, water supply projections, aquatic habitat modeling, reservoir operations modeling, Performance Measures Spreadsheets, and the Low Inflow Protocol are compelling evidence that not only did the Team balance the benefits but that the results are also factually sound and sustainable into the future.

This document is available from FERC's eLibrary at www.ferc.gov using the Accession Number 20070426-0278.

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26. The City of Camden, South Carolina signed the CRA. To my knowledge, the City has not submitted any comments to FERC.

27. FERC has not yet taken final action on Duke's relicensing application.

28. Based on discussion and data in the report attached to Dr. Badr's affidavit ("Badr Report"), Division personnel, under my supervision, were able to re-create the so-called "natural flow" scenario discussed in the Report. The output from the Division's re-creation matched the available output from the Badr Report with 100% accuracy.

29. Based on the Division's re-creation, it is apparent that the so-called "natural flow" data set is premised on North Carolina consuming *absolutely no water from the Catawba River*. The complete prohibition of use of water from the Catawba River by North Carolina sources would force the closure of Duke's nuclear and coal-steam power plants (which serve both North Carolina and South Carolina), cut off water service to millions of residential and business users (including many in York County and Clover, South Carolina who receive water from North Carolina systems), and prohibit farmers from irrigating crops. These users could seek water from other sources, such as other nearby rivers (which all flow into South Carolina) or groundwater. Even if sufficient groundwater were available (which it is likely not), such massive use of

groundwater would invariably impair the ability of the Catawba River to sustain base flows during drought.

30. The Badr Report also assumed that the reservoirs on the Catawba River in North Carolina do not exist. One function of these reservoirs is to store water during high flow periods in order to enhance flows during drought for downstream users, including those in South Carolina. Even if the reservoirs were operated to simulate "natural flow" from Lake Wylie, reservoir water levels would decline sharply and remain well-below historic levels due to evaporation, which would dramatically and adversely impact area communities and lake-related business and negate the ability of the system to enhance flows during drought.

31. Due to these flaws in the Badr Report's "natural flow" analysis, the analysis is of no real value in evaluating the impact of North Carolina's consumptive withdrawals from the Catawba River or determining each State's "fair share" of the river's water.

32. The Badr Report compared the so-called "natural flow" to operation of the Catawba-Wateree Project in 2001. When the new FERC license is issued, the operating parameters for the Project will most likely be substantially revised. Under the current license, Duke is required to release from Lake Wylie only 411 cfs. The signatories to the CRA (including Duke) have asked FERC to require that Duke release at least 1,100 cfs from Lake Wylie. The signatories to

the CRA have agreed that it is appropriate to allow Duke to reduce flows during drought (to as low as 700 cfs) and during maintenance and emergency periods. Therefore, the comparison in the Badr Report between so-called "natural flow" and flows at the Rock Hill gage in 2001 are based on a flow regime that will likely soon be obsolete and replaced by a far more protective and broadly supported regime.

33. The Badr Report focuses on 2001, but the most critical period of the 1998-2002 drought was between July 1 and September 15, 2002. The CHEOPS analysis of the final CRA terms projected that if this exceptional drought occurred again, the flows at Lake Wylie during the equivalent period would not drop below 700 cfs, even with the level of consumptive withdrawals in North Carolina projected after 2050. In contrast, the Badr Report's so-called "natural flow" (which assumes no consumptive withdrawals in North Carolina) during such an exceptional drought period would be below 700 cfs over 40% of the time. Thus, the Badr Report fails to demonstrate that the Catawba River, in its so-called "natural" state, could even provide the flows to which South Carolina alleges it is entitled. Nor does the Badr Report show that the "natural flow" is more beneficial to South Carolina at the most critical stages of an exceptional drought than the flows that would be required under a new FERC license that adopts the negotiated CRA provisions. Even during 2001, and with significantly increased consumptive withdrawals in North Carolina, the CHEOPS analysis shows that the CRA would have sustained flows from Lake Wylie above 720 cfs at all

times. Under the "natural flow" analysis, with no consumptive withdrawals in North Carolina, the flow from Wylie would have failed to reach 720 cfs on 13 days.

34. In response to a petition filed in 2004 by the Cities of Concord and Kannapolis, North Carolina to transfer water from the Catawba River basin and the Yadkin River basin to the Rocky River sub-basin, the Division (in its capacity as staff to and in order to assist the EMC) analyzed the projected water needs of these communities, the water availability of the Catawba and the Yadkin Rivers, and the environmental impacts of the proposed transfers. Initially, Concord-Kannapolis requested a transfer of a total of 38 mgd from a combination of the Catawba and the Yadkin River basins, with a request for authorization to transfer the full 38 mgd out of the Catawba River if no withdrawal was permitted from the Yadkin River. (As discussed below, the EMC ultimately authorized only a 10 mgd transfer from the Catawba.)

35. The computer modeling results used to predict the effects of the proposed interbasin transfer were developed using the most recent version of the CHEOPS model. The modeled effects of the proposed interbasin transfer on reservoir levels for Lake James, Lake Norman, Lake Wylie and Lake Wateree were chosen as representative of the impacts and were presented in the environmental impacts statement ("EIS"). The modeling results for all 11 reservoirs were made available at http://www.ncwater.org/Data_and_Modeling/Catawba, DWR's

website. The model incorporated the most recent version of the LIP.

36. The analysis was based on projections of water supply needs for the year 2035, including municipal water supply, power plant cooling, agricultural, and industrial demands, based on DTA's Water Supply Study (discussed above). Thus, the analysis used projected increases in each category of water uses and evaluated the incremental effect of the Concord-Kannapolis interbasin transfer at its peak for the 2035 planning horizon.

37. As part of this analysis, the impacts of a 10 mgd transfer of water out of the Catawba River basin were assessed. Ten mgd from the Catawba River represents 0.36% of the average of the annual averages of daily flows of the river near Rock Hill, South Carolina (USGS Gage No. 02146000) for the period of record.

38. The analysis showed that a transfer of 10 mgd out of the Catawba River basin would not change the daily average flows discharged from Lake Wylie Dam when those daily averages were 1,221 cfs or below. Consequently, a 10 mgd transfer would not change the number of days on which Lake Wylie flows fell below 1,100 cfs. The analysis also showed that a 10 mgd transfer would not change the number of months during which the Catawba River basin was in a declared drought under the LIP. The model demonstrated that during the worst drought of record, a 10 mgd interbasin transfer would

result in a decline in the water level at Lake Wylie of less than one inch.

39. The results for Lake Wateree and all other reservoirs in South Carolina that were modeled, i.e. all reservoirs of the Catawba-Wateree FERC project, showed similarly insignificant changes in water levels and flows.

40. Assessment of low flow periods is critical to evaluating the ability of a river system to sustain withdrawals and to assimilate wastewater. Wastewater discharge permit limits are determined based on low flow parameters to ensure that discharges can be assimilated even under low flow conditions. The CHEOPS model shows that there is no diminution in the Catawba River's ability to assimilate pollutants or sustain other consumptive withdrawals as a result of a 10 mgd interbasin transfer because there are little or no projected effects on low flows or low reservoir levels.

41. According to the Water Supply Study, in 2005 South Carolina sources withdrew from Lake Wylie about 57.2 mgd (88.7 cfs), while returning only a small fraction of that water to the Catawba River.

42. Projections show that in 2008 93.7% of the flow of the Catawba River remains in the basin as measured at Lake Wateree, South Carolina.

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43. On or about August 1, 2005, I met with Danny Johnson, the Assistant Deputy Director of the Land, Water and Conservation Division of SCDNR. At this meeting, Mr. Johnson and I discussed, among other things, the pending petition by Concord and Kannapolis to transfer up to 38 mgd out of the Catawba River basin. Following that meeting, I received an electronic mail message on August 5, 2005 from Mr. Johnson. The body of the message read, in full:

> As follow-up to our recent conversation in Badin regarding the subject IBT [interbasin transfer], I've re-discussed the matter with Bud and our Division Director, and the consensus opinion is that the transfer is not large enough to be of concern to us. Besides, we get it back in the [Yadkin-]Pee Dee [River] where we may need it more anyway. So, we have considered the proposed transfer and do not feel we are sufficiently aggrieved to warrant commenting on the permit application. Thanks for the info on it.

It is my understanding that the "Bud" mentioned in this e-mail is Dr. A.W. "Bud" Badr of SCDHEC. I forwarded this message to DWR staff for inclusion in the EMC's decision-making record.

44. To my knowledge, neither SCDNR nor SCDHEC submitted any further substantive comments or any analysis of water flows, model results, lake levels, water use projections, or any other technical analysis whatsoever during the interbasin

transfer proceeding. However, on October 31, 2006, the Division received a brief letter from SCDHEC by which SCDHEC deferred to the positions of the South Carolina Governor and General Assembly opposing a transfer from the Catawba River of 36 mgd or more.

45. Despite the initial request by Concord and Kannapolis to transfer 38 mgd from a combination of the Catawba and Yadkin River basins, in January 2007 the EMC approved 10 mgd transfers from each of the Catawba River and the Yadkin River to the Rocky River (which flows back into the Yadkin River before reaching South Carolina). This reduction was due to the EMC's independent assessment of the two cities' need for the water.

46. Pursuant to the interbasin transfer authorization issued to Concord and Kannapolis, the cities must abide by drought restrictions that are virtually identical to those of the LIP. Moreover, the cities' obligation to initiate drought mitigation measures is triggered by drought conditions in any one of three basins: the Catawba River, the Rocky River, or the Yadkin River.

47. I personally observed on November 26, 2001 that Duke closed the Blythe Landing boat ramp on Lake Norman in North Carolina due to low reservoir levels caused by drought. I am aware that Duke closed a quarter of the boat ramps on its Catawba River reservoirs because low reservoir levels caused

by drought created safety hazards for boaters. Lakes James, Norman, and Wylie were the most affected by these closures.

48. It is my understanding that several local governments in North Carolina and South Carolina, as well as the Catawba Riverkeeper Foundation, Inc., have filed petitions pursuant to the North Carolina Administrative Procedure Act seeking review of the EMC's approval of the Concord and Kannapolis interbasin transfer. These petitions are pending in the North Carolina Office of Administrative Hearings and have been assigned case numbers 07 EHR 0476 and 07 EHR 0480, respectively.

49. Contrary to the allegation of the Catawba Riverkeeper (Motion for Leave to File Bill of Complaint ("Bill of Compl."), App. 41), not all interbasin transfers authorized by North Carolina cause "an increase in the amount of treated waste water discharged into the Yadkin/Pee Dee Rivers, thereby removing waste assimilation capacity from the South Carolina portion of the Pee Dee River" because not all of the transfers authorized allow water to be transferred to the Yadkin/Pee Dee River system. Moreover, as Mr. Johnson (SCDNR) indicated in his electronic mail message that I quoted earlier, adding water to the Yadkin/Pee Dee system via interbasin transfer may be beneficial to that system.

50. Under the State's Water Use Act of 1967, N.C. Gen. Stat. §143-215.11 - .19, the EMC retains the authority to mandate dramatic reductions in water use if it were to conclude

that the ability of Catawba River to sustain its uses was threatened. For example, the EMC has mandated phased reductions of groundwater use of up to 75% in the North Carolina's Central Coastal Plain in order to sustain the viability of the Cretaceous Aquifers. 15A N.C. Admin. Code 2E .0500. Based in part on the results of the modeling performed for the Catawba-Wateree Project relicensing process and the Concord-Kannapolis interbasin transfer, it is my opinion that regulation of the Catawba River under the Water Use Act is not necessary or appropriate to protect its uses, and that contrary to the opinion of the Catawba Riverkeeper (Bill of Compl., App. 42), the Catawba River has not "reached its threshold for sustainable use."

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on August 3, 2007.

/s/ Thomas C. Fransen
Thomas C. Fransen

No. 138, Original

In the

Supreme Court of the United States

STATE OF SOUTH CAROLINA,

Plaintiff,

v.

STATE OF NORTH CAROLINA,

Defendant.

On Motion for Leave to File Complaint

DECLARATION OF W. BRIAN HIATT

I, W. Brian Hiatt, do hereby declare, certify, and state that:

1. I am the City Manager of Concord, North Carolina. I have served as City Manager since 1998.

2. I hold a Bachelor of Science degree (summa cum laude) in History and Government Service from Appalachian State University, and a Master of Public Administration from the University of North Carolina at Chapel Hill.

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3. Combined, the Concord and Kannapolis water systems provide almost 100 percent of the public water supply in Cabarrus County, North Carolina. Concord and Kannapolis share the same watershed, the upper portion of the Rocky River sub-basin. This watershed is relatively small.

4. The drought that occurred in central and western North Carolina and South Carolina beginning in 1998 and continuing into 2002 (the "Drought") significantly impacted communities such as Kannapolis and Concord in Cabarrus County, North Carolina. The Drought impacted Cabarrus County communities for a longer period of time than elsewhere, into 2003, because of the small size of their drinking water watersheds, all of which are in the upper portion of the Rocky River sub-basin.

5. The City of Concord became aware of the impact of the Drought as early as 1998. Initial efforts to develop agreements for water supply with Kannapolis and other neighboring communities began at that time.

6. Concord cooperated closely with the City of Kannapolis during the Drought regarding use of water resources. The two cities developed very similar water restrictions.

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7. In 2002, Concord changed its water rate structure to strongly discourage excessive water use. Mandatory water use restrictions were in place for nearly three years, from February 2, 2001 through November 14, 2003. Irrigation was not allowed for over two years, from February 2, 2001 through June 4, 2003. Subsequently, irrigation was allowed only during the hours between 6:00 p.m. and 6:00 a.m., because irrigating during the day facilitates wasteful evaporation.

8. Concord had a heavy advertising campaign to reach its water users during the Drought, including mailers, newspaper advertisements, and billboards, that outlined the conditions of the drought and, depending on drought stage, the voluntary and/or mandatory water use measures for households to implement.

9. When Governor Michael F. Easley called for a 20 percent reduction in water use throughout North Carolina during the summer of 2002, Concord had already achieved a reduction in water use of nearly 30 percent, even though this resulted in substantial losses in the city's water and wastewater revenue.

10. Because this watershed is small, it took many months of above average precipitation to

effectively end the Drought and replenish water supplies. Although the drought conditions ended in much of North Carolina and South Carolina in October/November 2002, water restrictions remained in place for Concord until the fall of 2003.

11. After the Drought, water use in the Concord system has changed even for non-drought periods. Per capita use has declined from when it was previously evaluated during the water and wastewater master planning process conducted from 2000 through 2002. This decline is attributed to the water rate structure adopted during the Drought and the promotion of the City of Concord as a "Water Conservation Community," which the City advertises on its signage, websites and public information materials. Documentation of reduced water usage will be gathered in the next master planning process, which will occur during 2008, but already has been estimated at about 10 percent since the 2000-2002 period.

12. Concord has been commended by State officials as having one of the most aggressive water conservation programs and water rate structures in North Carolina. Subsequent to the Drought, the combination of these measures has reduced irrigation and other consumptive water uses, which typically represent 50 to 75 percent of the peak day demand.

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13. Concord aggressively enforced its ordinances restricting water use during the Drought. Concord issued fines totaling $72,600 during the Drought, which made the headlines of *USA Today* and were described by State officials as the most significant water use enforcement effort in North Carolina's history.

14. The City of Concord created a tiered rate structure that promotes water conservation and strongly discourages irrigation and excessive water use by making high levels of consumption more expensive. The rate structure, with its economic disincentives to excessive water use, complements the City's conservation programs.

15. For water customers both inside and outside of the Concord city limits, the first rate tier volume charge threshold is consumption of 7,500 gallons per month, and the charge per additional 1,000 gallons used per month increases by over two dollars per gallon (from $4.72 per 1000 gallons to $6.84 per 1000 gallons for city residents or from $5.66 per 1000 gallons to $8.21 per 1000 gallons for nonresidents). Concord adopted this rate structure during the Drought and has kept the rate structure in place since the Drought.

Hiatt Declaration, Aug. 3, 2007

16. Typically for a water supply system, irrigation and other consumptive uses such as cooling waters can represent 50 to 75 percent of the peak day demand and 20 to 25 percent of average annual consumptive water use. After Concord implemented conservation measures and the new rate structure, irrigation use has become only a small percentage of the average water use. Similarly, water demands have not returned to previous levels because the rate structure discourages water use.

17. The water management ordinances enacted by Concord promote efficient water use at all times, not just during drought conditions, by requiring water-sensitive systems that turn off when adequate rainfall occurs, and have leak prevention measures, among a number of other requirements. Additionally, these conservation measures apply to all service areas of the City, including other communities within Cabarrus County that receive water from Concord.

18. Concord also has enacted a Water Emergency Management Ordinance. Concord's ordinance was updated in March 2003 to address future connection and extension of its water system. The ordinance establishes four drought stages, ranging from Level I (the least severe) to Level IV (the most severe), and sets out the restrictions to be

implemented under each level, together with enforcement measures. For example, at Drought Level III, large scale commercial and industrial water customers using 5,000 gallons or more daily must undergo mandatory reductions of 25, 50 or 75 percent, depending upon the severity of the emergency. At Drought Level IV, all water use other than for maintenance of public safety is prohibited, and residential usage is limited to 300 gallons daily per metered location.

19. The available water supply in the Rocky River sub-basin is insufficient to meet projected needs. Concord has a limited watershed for water supply development. Potential reservoir sites in the watershed have already been developed, and Concord already has more reservoir storage than it has watershed yield to supply it. Based on the safe yield of existing supplies, a shortage of approximately 18.32 million gallons per day ("MGD") is projected by 2035 for Concord and Kannapolis combined. In spite of the aggressive conservation measures enacted by Concord, without the 10 MGD interbasin transfer from the Catawba River basin recently approved by the North Carolina Environmental Management Commission, Concord will face severe future water supply shortages not only in times of drought, but in periods of normal rainfall.

Hiatt Declaration, Aug. 3, 2007

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on this 3rd day of August, 2007.

/s/ W. Brian Hiatt
W. Brian Hiatt

No. 138, Original

In the

Supreme Court of the United States

STATE OF SOUTH CAROLINA,

Plaintiff,

v.

STATE OF NORTH CAROLINA,

Defendant.

On Motion for Leave to File Complaint

DECLARATION OF MIKE LEGG

I, Mike Legg, do hereby declare, certify, and state that:

1. I am the City Manager of Kannapolis, North Carolina. I have served as City Manager since September 30, 2004, and as Assistant City Manager since 2001. I have also twice held the position of Interim City Manager since 2001.

2. I hold a degree in Geography and Urban and Regional Planning from the University of North Carolina at Charlotte.

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3. Combined, the Kannapolis and Concord water systems provide almost 100 percent of the public water supply in Cabarrus County, North Carolina. Kannapolis and Concord share the same watershed, the upper reaches of the Rocky River sub-basin. This watershed is relatively small.

4. The drought that occurred in central and western North Carolina and South Carolina beginning in 1998 and continuing into 2002 (the "Drought") significantly impacted communities such as Kannapolis and Concord in Cabarrus County, North Carolina. The Drought impacted Cabarrus County communities for a longer period of time than elsewhere, into 2003, because of the small size of their drinking water watersheds, all of which are in the upper portion of the Rocky River sub-basin.

5. The City of Kannapolis became aware of the impact of the Drought as early as 1998. Initial efforts to develop agreements for water supply with Concord and other neighboring communities began at that time.

6. Kannapolis cooperated closely with the City of Concord during the Drought regarding use of water resources. The two cities developed very similar ordinances to restrict water use and conserve water.

Legg Declaration, Aug. 2, 2007

7. Kannapolis discourages excessive water use with its rate structure, and implemented its water conservation ordinance during the Drought to further limit water use. Mandatory water use restrictions were in place for nearly three years, from September 11, 2000 through February 24, 2003. Irrigation was not allowed for over a year, from July 30, 2002 through June 4, 2003. Subsequently, irrigation was allowed only during the hours between 6:00 p.m. and 6:00 a.m. because irrigating during the day facilitates wasteful evaporation.

8. Kannapolis also had a heavy advertising campaign to reach its water users during the Drought, including mailers and newspaper advertisements that outlined the conditions of the drought and, depending on drought stage, the voluntary and/or mandatory water use measures for households to implement.

9. When Governor Michael F. Easley called for a 20 percent reduction in water use throughout North Carolina during the summer of 2002, Kannapolis had already achieved a reduction in water use of nearly 30 percent, even though this resulted in substantial losses in the city's water and wastewater revenue.

10. Because this watershed is small, it took many months of above average precipitation to

effectively end the Drought and replenish water supplies. Although the drought conditions ended in much of North Carolina and South Carolina in October/November 2002, water restrictions remained in place for Kannapolis until the fall of 2003.

11. After the Drought, water use in the Kannapolis system has changed even for non-drought periods. Per capita use has declined from when it was previously evaluated during the water and wastewater master planning process conducted from 2000 through 2002. This decline is attributed in part to the water rate structure. Documentation of reduced water usage will be gathered in the next master planning process, which will occur during 2008, but already has been estimated at about 10 percent since the 2000-2002 period.

12. Kannapolis has been commended by State officials as having one of the most aggressive water conservation programs and water rate structures in North Carolina. Subsequent to the Drought, the combination of these measures has reduced irrigation and other consumptive water uses, which typically represent 50 to 75 percent of the peak day demand. In addition, Kannapolis aggressively enforced its ordinances restricting water use during the Drought. Concord and Kannapolis were recognized for their

Legg Declaration, Aug. 2, 2007

water conservation programs and drought planning. Kannapolis aggressively enforced their ordinances and issued citations through the Kannapolis Police Department, Codes Enforcement and Public Works staff.

13. The City of Kannapolis uses a flat rate structure; however, the rates themselves promote efficient water use. Kannapolis charges a base rate in addition to a "per 1,000 gallon" rate that is higher than normal to discourage excessive water use. For water customers inside the Kannapolis city limits, the base charge is $3.30 and the volume charge for all volumes is $5.40/1,000 gallons. For customers outside the city limits, the base charge is $3.96 and the volume charge for all volumes is $6.48/1,000 gallons.

14. Typically for a water supply system, irrigation and other consumptive uses such as cooling waters can represent 50 to 75 percent of the peak day demand and 20 to 25 percent of average annual consumptive water use. After Kannapolis implemented conservation measures and the new rate structure, irrigation and other consumptive uses have been reduced. Irrigation use has become only a small percentage of the average water use. Similarly, other water demands have not returned to previous levels because the rate structure discourages water use.

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15. Kannapolis is in the process of adopting an ordinance similar to that already in place in Concord, to require water-sensitive systems that turn off when adequate rainfall occurs, and have leak prevention measures. These conservation measures will apply to all service areas of the City, including other communities within Cabarrus County that receive water from Kannapolis.

16. Kannapolis also has enacted a Water Emergency Management Ordinance, which has been in effect since March 2001. The ordinance addresses future connection and extension of its water system. The ordinance establishes four drought stages, ranging from Level I (the least severe) to Level IV (the most severe), and sets out the restrictions to be implemented under each level, together with enforcement measures. For example, at Drought Level III, large scale commercial and industrial water customers using 5,000 gallons or more daily must undergo mandatory reductions of 25, 50 or 75 percent, depending upon the severity of the emergency. At Drought Level IV, all water use other than for maintenance of public safety is prohibited, and residential usage is limited to 300 gallons daily per metered location.

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17. The available water supply in the Rocky River sub-basin is insufficient to meet projected needs. Kannapolis has a limited watershed for water supply development. Potential reservoir sites in the watershed have already been developed, and Kannapolis already has more reservoir storage than it has watershed yield to supply it. Based on the safe yield of existing supplies, a shortage of approximately 18.32 million gallons per day ("MGD") is projected by 2035 for Kannapolis and Concord combined. In spite of the aggressive conservation measures enacted by Kannapolis, without the 10 MGD interbasin transfer from the Catawba River basin recently approved by the North Carolina Environmental Management Commission, Kannapolis will face severe future water supply shortages not only in times of drought, but in periods of normal rainfall.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Legg Declaration, Aug. 2, 2007

Executed on this 2nd day of August, 2007.

/s/ Mike Legg
Mike Legg

No. 138, Original

In the

Supreme Court of the United States

STATE OF SOUTH CAROLINA,

Plaintiff,

v.

STATE OF NORTH CAROLINA,

Defendant.

On Motion for Leave to File Complaint

DECLARATION OF JOHN N. MORRIS

I, John N. Morris, do hereby declare, certify, and state that:

1. I am the Director for the Division of Water Resources of the North Carolina Department of Environment and Natural Resources ("DENR"). I have served as Director of DWR since 1980 (including predecessor entities).

2. Prior to coming to the Department of Environment and Natural Resources in 1977, I served as a Senior Planning Analyst with the State Planning

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Division of the North Carolina Department of Administration, and in this position I was responsible for natural resources and agriculture programs.

3. I have also served as a board member and chairman of the Interstate Council on Water Policy, an organization of state water management agencies, and as board member and chairman of the North Carolina Water Resources Association.

4. The Division of Water Resources ("the Division" or "DWR") is North Carolina's governmental agency primarily charged with monitoring and managing the State's water resources. The Division is responsible for water supply planning, water supply technical assistance to local governments, river basin planning, special studies of regional water supply and water management problems, and instream flow studies. The Division administers state water allocation laws related to capacity use areas and to interbasin transfers. The Division provides planning and financial assistance to local governments for navigation, flood control, water-based recreation, aquatic weed control, and beach protection projects and represents the State of North Carolina in partnerships with local governments and the U.S. Army Corps of Engineers to build these projects. N.C.

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Gen. Stat. Chapter 143, Article 2 and 2A and Article 38.

5. The Division serves as staff to the North Carolina Environmental Management Commission ("EMC"), and the Division's River Basin Management Section receives all petitions for interbasin transfers filed pursuant to N.C. Gen. Stat. § 143-215.22I.

6. I personally oversee the work of the Division, including its four operational sections. I directly supervise Tom Fransen, Head of the River Basin Management Section, who is responsible for managing State programs assigned to the Division related to the State's reservoirs and river basins.

7. The Catawba River begins in McDowell County, North Carolina and flows easterly, then southerly through the Catawba-Wateree Hydroelectric Project (Project No. 2232), a series of man-made impoundments that are managed under a single hydropower license issued by the Federal Energy Regulatory Commission ("FERC"). The Catawba River flows through Alexander, Avery, Burke, Caldwell, Catawba, Gaston, Iredell, Lincoln, McDowell and Mecklenburg Counties in North Carolina.

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8. With regard to the Catawba River, Duke Energy Carolinas, LLC ("Duke Energy") owns and operates 11 hydroelectric dams in the Catawba-Wateree Project that regulate the flow of water on the Catawba. Duke Energy's reservoirs on the Catawba are: Lake James; Lake Rhodhiss; Lake Hickory; Lookout Shoals Lake; Lake Norman; Mountain Island Lake; Lake Wylie (which straddles the North Carolina-South Carolina state line); and in South Carolina, Fishing Creek Lake; Great Falls Lake; Rocky Creek Lake; and Lake Wateree.

9. Duke Energy is currently undergoing relicensing for the Catawba-Wateree Project, and both North Carolina agencies and South Carolina agencies have participated in this process. Several of the Division staff, including Tom Fransen and Steve Reed, have participated in these proceedings on behalf of DWR.

10. From 1998 through 2002 North Carolina and South Carolina suffered a long-term drought. Significant impacts of this drought in North Carolina's portion of the Catawba River basin included:

a. decreased rates of hydroelectric power generation and resulting economic losses;
b. lowered reservoir levels, as a result of diminished rainfall and the need for Duke

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Energy to release water in an attempt to maintain river flow levels;

c. depleted public water supplies;
d. algal blooms that affected the taste and smell of drinking water; and
e. decreased opportunities for boating and other recreation.

11. The period of drought experienced by both North Carolina and South Carolina beginning in 1998 became extreme in 2002, and greatly stressed the water resources of the Catawba River Basin. As a result of this drought, the existing FERC license for the Catawba-Wateree Project was shown to be inadequate to meet reservoir level and water flow needs under extreme drought conditions. The proposed new licensing conditions in the Comprehensive Relicensing Agreement ("CRA") filed by Duke Energy with FERC in December 2006 contain operating rules that will maintain higher lake levels and allow higher flows into South Carolina if future drought conditions occur.

12. I am familiar with Donna Lisenby's assertion that "[a]lgae blooms occurred on Lake Wateree in the State of South Carolina that caused such taste and odor problems in finished drinking water for the City of Camden, South Carolina that residents stopped

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drinking tap water and started buying bottled water." (Motion for Leave to File Bill of Comp., ("Compl. Mot."), App., 38) Based on my knowledge of the drought-related, water shortage issues during this time period, it appears that North Carolina had problems of a similar nature to Camden's, but that North Carolina's problems were more widespread and existed to a greater degree.

13. I am aware that as a result of drought conditions in 2001 and 2002, DENR's Division of Water Quality, Environmental Sciences Branch conducted special studies on Lake Rodhiss and Lake Hickory. Lake Rodhiss, which supplies water for the towns of Valdese, Granite Falls, and Lenoir, suffered an algal bloom that began in 2001 and continued into 2002, resulting in taste and odor complaints from water users. Lake Hickory, which supplies water for the City of Hickory, suffered an algal bloom in 2002, resulting in taste and odor complaints from its water users.

14. During my 27 years working with public water supply systems in my position as the Director of the Division of Water Resources, it has been my experience that it is not uncommon for water systems to suffer taste and odor problems during droughts, and this is not a health or safety issue. During a drought, the

residence time for water in a reservoir increases, providing more time for the water to grow algae. Hot, still weather adds to the problem. Treatment plants vary in their capacity to remove algae; therefore, some of the "musty" or "vegetative" taste and odor of the algae may remain in the water when it is distributed. Some water systems experience this situation even under non-drought, or normal flow, conditions during the summer when conditions for algae growth are optimal.

15. A much more dire consequence of the drought for North Carolina occurred in the town of Cherryville, Gaston County, North Carolina in the South Fork Catawba subbasin of the Catawba River Basin, about 30 miles northwest of Charlotte, North Carolina. In mid-August 2002, the town suffered a water shortage and was required to use an emergency pump on a flatbed trailer (provided by North Carolina's Division of Emergency Management) to pump water from a hydrant on the Lincoln County water system into a hydrant on the Cherryville water system. Then when the Lincoln County system lost pressure and had to discontinue pumping, Cherryville faced the prospect of exhausting its emergency reservoir in four or five days thereby depleting the water supply for its population of 5,400. Fortunately, the town did not have to truck in water for its population, but in late-August 2002 as

the drought continued to worsen, Indian Creek, a major source of water for Cherryville, reached a flow level of one percent of its normal flow. At that time a member of DENR's staff worked with town officials to determine that an emergency well should be drilled and the height of the town's low-water dam on Indian Creek should be increased in order to provide adequate water supply for town residents.

16. As a result of North Carolina's experience with the drought that occurred from 1998 through 2002, the North Carolina General Assembly, in 2002, directed the EMC to adopt rules to "govern[] water conservation and water reuse during drought and water emergency situations." 2002 N.C. Sess. Laws 167, § 3(a).

17. After an extended stakeholder process, the EMC adopted regulations to govern water usage during periods of drought. These regulations, found at 15A North Carolina Admin. Code 2E .0601, *et seq.*, set standards for water conservation during droughts in the Catawba River basin and statewide.

18. The General Assembly has also created the Drought Management Advisory Council ("Council" or "DMAC"). 2003 N.C. Sess. Laws 387, § 2, codified at N.C. Gen. Stat. § 143-355.1. The DMAC is authorized to issue drought advisories defining the extent and

severity of drought in North Carolina as a guide to help water users adopt effective drought management policies. The Division provides staff support for the Council.

19. North Carolina by statute actively manages use of its river and lake resources and has consulted with South Carolina, as appropriate, about such use. North Carolina manages its water resources by a combination of planning, registration of water users, permitting and regulation.

20. North Carolina requires all units of local government that provide or plan to provide public water service, to prepare a Local Water Supply Plan and to update that plan at least every five years. In addition, all community water systems that regularly serve 1,000 or more service connections or serve more than 3,000 people are required to prepare a Local Water Supply Plan. N.C. Gen Stat. § 143-355(l). The Division uses these Local Water Supply Plans to create and update the North Carolina Water Supply Plan. Most recently the State has begun developing water supply plans for each river basin, which will be used to assure a sustainable, long-range basis for water use planning in each basin and to inform State regulatory decisions related to water resource management.

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21. North Carolina requires that "[a]ny person who withdraws 100,000 gallons per day or more of water from the surface or groundwaters of the State or who transfers 100,000 gallons per day or more of water from one river basin to another shall register the withdrawal or transfer with the Commission," and the registration must be updated at five-year intervals following the initial registration. N.C. Gen. Stat. § 143-215.22H(a) and (d). The threshold for registering agricultural uses is 1,000,000 gallons per day. N.C. Gen. Stat. § 143-215.22H(b1).

22. The Division's records indicate that as of July 30, 2007 there are 24 public water supply systems, 27 non-agricultural users, and 4 agricultural users withdrawing water from the Catawba River basin (these numbers include not only water users required to register per N.C. Gen. Stat. § 143-215.22H, but also those water users registering any amount of withdrawal, however small, and include both groundwater and surface water withdrawals).

23. North Carolina requires any person to secure a certificate from the EMC before (a) transferring 2,000,000 gallons of water or more per day from one river basin to another or (b) increasing the amount of an existing transfer above the amount approved by the EMC in a certificate issued prior to July 1, 1993,

except where a facility to transfer water from one basin to another was existing or under construction on July 1, 1993 and the transfer would be within the "full capacity" of that existing facility (i.e., except where the facility is "grandfathered"). The General Assembly also authorized existing surface water transfers for which environmental review pursuant to the North Carolina Environmental Policy Act, N.C. Gen Stat. § 113A-1, *et seq.* ("NCEPA") had been completed 1993 N.C. Sess. Laws 384, § 7. Surface Water Transfer Law, N.C. Gen. Stat. § 143-215.22I, *et seq.* (also known as the "Interbasin Transfer Statute").

24. Pursuant to the Interbasin Transfer Statute, the State of North Carolina has authorized the following transfers from the Catawba River Basin:

a. Charlotte-Mecklenburg – 33 million gallons per day ("mgd") maximum daily transfer to the Rocky River basin.
b. Concord and Kannapolis – 10 mgd maximum daily transfer to the Rocky River basin.

25. The Division's records indicate that as of July 30, 2007 the following are users reported transfers from the Catawba River basin to another River basin, but were not required to obtain a certificate from the EMC:

a. Lenoir to Yadkin River basin <0.1 mgd

b. Cherryville to Broad River basin <0.1 mgd

26. As discussed above, the Interbasin Transfer Statute authorized certain existing facilities or those for which environmental review had been completed. The Division's records indicate that there are three "grandfathered" transfers from the Catawba River basin:

a. Mooresville –9.54 mgd maximum daily transfer to the Rocky River/South Yadkin River basin.
b. Union County – 5 mgd maximum daily transfer to the Rocky River basin.
c. Statesville – 15 mgd maximum daily transfer to the South Yadkin basin.

27. Interbasin transfers reduce the flow of the Catawba River by a small percentage when compared with other consumptive water uses. Projected to 2038 by the water supply study prepared, as part of the CRA, for Duke Energy by HDR Engineering, Inc. of the Carolinas ("Duke Energy Water Supply Study"), the largest consumptive water uses within the Catawba River basin, in order of magnitude of water consumption, are: (a) thermal power plant cooling (5.2%), (b) the consumptive use portion of normal municipal water use within the Catawba River basin (excluding transfers) (4.5%), (c) interbasin transfers (2%), and (d) agricultural irrigation (1.7%).

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28. The Interbasin Transfer Statute mandates a rigorous process that takes a significant amount of time, effort, and expense on the part of the applicant, the Division (as staff to the EMC), and the EMC. Upon filing a petition requesting a certificate authorizing an interbasin transfer, N.C. Gen. Stat. § 143-215.22I requires (a) a detailed proposal (including water conservation measures to be employed); (b) an analysis of the environmental impacts of the proposed transfer that meets the requirements of NCEPA; (c) public notice and hearing and opportunity to submit written comments; and (d) a determination that the benefits of the proposed transfer outweigh the detriments and that the detriments will be mitigated to a reasonable degree. For example, Concord and Kannapolis submitted the petition for an interbasin and Draft Environmental Impact Statement (EIS) in November 2004, the EMC authorized proceeding to public comment and public hearing in December 2004, a Final EIS was issued in May 2006, a Revised Final EIS was issued in November 2006, and the EMC approved an interbasin transfer and issued the interbasin transfer certificate in January 2007 – the decision-making process exceeded two years.

29. The extent of stakeholder involvement in interbasin transfer decision making is typified by the

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Concord-Kannapolis interbasin transfer certification process. During the comment period on the Concord-Kannapolis interbasin transfer petition and Environmental Impact Statement, over 290 oral comments were received over the course of two public hearings and two additional public meetings, and over 1,600 written comments were received. Public hearing attendees included citizens of South Carolina and public comments were received not only from citizens of South Carolina, but also South Carolina governmental entities, such as Kershaw County (where Camden, South Carolina is located) and industries, such as Bowater.

30. These water resource planning efforts within North Carolina, along with permitting and regulation, benefit and protect downstream users of water from the 17 major river basins in North Carolina, including South Carolina.

31. DWR's website contains information regarding all approved interbasin transfers of 2,000,000 million gallons of water or more per day and lists registered water users, those who withdraw 100,000 gallons or more per day from surface or groundwater or who transfer 100,000 gallons or more from one river basin to another and are not exempted by N.C. Gen. Stat. 143-215.22H, for the years of 1999, 2004, 2005, 2006.

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This information is available to the public in general, including South Carolina, at www.ncwater.org.

32. During the Duke Energy Water Supply Study, the Division provided all of its information about present and projected water withdrawals in the North Carolina portion of the Catawba River basin, including interbasin transfers, to the Duke study team and to their consultant. This information was incorporated into their water supply study and was available to South Carolina government agencies and to other interested parties.

33. As indicated in items 31 and 32, the Division has made information on water use in North Carolina freely available to South Carolina. I have no knowledge of any request by South Carolina to DWR for information regarding water withdrawals or interbasin transfers nor has my staff informed me of any such requests.

I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on August 1, 2007.

/s/ John N. Morris
John N. Morris

No. 138, Original

In the

Supreme Court of the United States

STATE OF SOUTH CAROLINA,

Plaintiff,

v.

STATE OF NORTH CAROLINA,

Defendant.

On Motion for Leave to File Complaint

DECLARATION OF STEVEN REED

I, Steven Reed, do hereby declare, certify, and state that:

1. I received a Bachelor of Arts degree in Zoology from the University of North Carolina at Chapel Hill in 1972. I received a Master of Science degree from East Carolina University in Aquatic Ecology in 1979.

2. I began working for the predecessor agency to the North Carolina Department of Environment and Natural Resources ("DENR") on January 1, 1976 and have been employed at DENR or its predecessor

agencies since that time. I am presently employed by DENR's Division of Water Resources ("DWR") and hold the position of Environmental Supervisor. I also serve as the Aquatic Ecology Team Leader as well as the Hydropower Licensing Coordinator.

3. DWR has been assigned to be the lead division within DENR regarding DENR's participation in the "relicensing" of hydropower projects in North Carolina that are licensed by the Federal Energy Regulatory Commission ("FERC"). "Relicensing" describes the process that is initiated prior to the expiration of an existing license for a hydropower project and that is intended to result in a new license for operation of the project.

4. I am responsible for coordinating DENR's participation in the relicensing of Alcoa Power Generating Inc.'s ("APGI") Yadkin Hydroelectric Project (FERC Proj. No. 2197) and several projects operated by Duke Energy Corp.-Nantahala Area ("DPNA") (FERC Proj. Nos. 2601, 2602, 2603, 2619, 2686, 2692 and 2698). I have also coordinated for DENR the now-completed relicensing of APGI's Tapoco Project (FERC Proj. No. 2169) and DPNA's Queens Creek Project (FERC Proj. No. 2694).

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5. I am primarily responsible for coordinating DENR's participation in the relicensing of Duke Energy Carolinas LLC's ("Duke") Catawba-Wateree Hydro Project ("Catawba Project"), which has been assigned docket number P-2232 by FERC. The Catawba Project includes 11 dams -- 6 in North Carolina and 5 in South Carolina -- on the Catawba River. It is one of the largest projects currently under FERC license. The license for this project expires in August 2008.

6. I was integrally involved in the Catawba Project relicensing process. I personally participated in at least a hundred meetings and conference calls over a four-year period. I also participated in many days of field work and technical analysis and was directly involved in the drafting of settlement provisions and proposed license articles within my areas of experience and expertise.

7. The relicensing process for the Catawba Project began in earnest in February 2003 when Duke filed with FERC its First Stage Consultation Document. Duke filed with FERC a Notice of Intent to Relicense in July 2003.

8. Early in the process, the interested parties were organized into several Stakeholder Teams. Eighty

different parties were represented, including federal, State, Tribal, and local government, and various advocacy and interest groups. Several resource committees and ad hoc committees were also formed to carry out technical analyses and field studies, develop alterative operating scenarios, analyze these alternatives, and build consensus. One committee was specifically devoted to overseeing the Computer Hydro-Electric Operations and Planning Software ("CHEOPS") hydrologic model. Other committees addressed, for example, consumptive water uses, water quality, and downstream flow issues.

9. Representatives from South Carolina resources agencies were invited to participate on all committees conducting work relevant to water use and water quality. These committees addressed, for example, the use of CHEOPS to evaluate operating scenarios, minimum flow proposals (including the proposed 1,100 cubic feet per second ("cfs") minimum flow from Lake Wylie), planning for consumptive uses of Catawba River water throughout the term of the new license (including interbasin transfers), and drought management (particularly the Low Inflow Protocol ("LIP")).

10. The process for crafting a consensus operating scenario involves the balancing of various

water uses, which include instream uses (releases for power generation, releases to maintain fish habitat and to support fish spawning, releases for recreational uses such as canoeing, releases to maintain flows necessary for wastewater assimilation, etc.) and offstream uses (drinking water, industrial process water, cooling water for thermal power generation, etc.). To accomplish this, the Catawba relicensing participants used a rigorous iterative process involving the linking of multiple models that is more sophisticated than any analogous process used in any other relicensing in North Carolina.

11. The stakeholder process resulted in the Comprehensive Relicensing Agreement for the Catawba-Wateree Hydro Project FERC Project No. 2232 ("CRA"). The CRA is a good faith, balanced compromise of the signatories' positions and needs and is based on sound data and analysis.

12. The CRA includes proposed license articles that the signatories have requested FERC include in the new license for the Catawba Project. One proposed license article would require a 1,100 cfs minimum flow (measured instantaneously) from the Lake Wylie dam in South Carolina, except during drought. As with the overall CRA, the flow requirements, including requirements for flows from Lake Wylie dam, were the

result of good faith negotiation and a compromise of many interests based on sound science. The current license requires a minimum release from the Lake Wylie dam of 411 cfs (measured as a daily average).

13. The parties have also agreed that each party that withdraws water from the Catawba River would be subject to the LIP, relevant excerpts of which are attached to this declaration at Attachment A. The LIP provides a staged response to worsening droughts. In general, at each stage the flow requirements (including those regarding Lake Wylie flows) would be reduced in order to preserve in-reservoir supplies; water users would be required to implement stricter demand control measures in order to reduce their need for water. However, the LIP would not reduce the amount of water each party (except Duke) is permitted to use. The parties have requested that FERC impose the LIP on Duke as a condition of the new license.

14. One proposed license article would require Duke to provide minimum instream flows to meet the specific needs of several named major industrial users (Celanese Acetate, Nations Ford Chemical, South Carolina Electric & Gas Company, International Paper, and the Bowater Pulp and Paper Mill) and municipal water users (Union/Lancaster Catawba River Water Treatment Plant and Rock Hill Municipal

back-up water supply intake) in South Carolina. The proposed article would permit temporary variances only during droughts. The proposed article provides similar, but fewer, minimum flow requirements for North Carolina users.

15. The parties to the CRA have requested that FERC issue a license with a term of no less than 40 years.

16. The CRA was executed by 70 parties in the summer of 2006. (The CRA was slightly revised in December 2006.)

17. The following South Carolina government entities signed the CRA: the South Carolina Department of Natural Resources; the South Carolina Department of Parks, Recreation, and Tourism; and the South Carolina Department of Archives and History. The South Carolina Department of Health and Environmental Control did not sign the CRA. It is my understanding that this was not related to any substantive disagreement regarding terms affecting water quantity, availability, or flow.

18. The following additional parties in South Carolina also signed the CRA: Bowater Incorporated; Chester Metropolitan District; City of Camden, South

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Carolina; City of Rock Hill, South Carolina; International Paper; Kershaw County, South Carolina; Kershaw County Conservation District; Lake Wateree Association; Lake Wylie Marine Commission; Lugoff-Elgin Water Authority; South Carolina Electric & Gas; South Carolina Wildlife Federation; Springs Global US, Inc.; Town of Great Falls, South Carolina; Wateree Homeowners Association - Fairfield County; York County, South Carolina; and York County Culture and Heritage Commission.

19. Duke filed with FERC its application for a new license and the CRA on August 29, 2006. The amended CRA was submitted to FERC on December 29, 2006.

20. Before issuing a license, FERC must comply with the National Environmental Policy Act. Under this responsibility, FERC has announced that it will produce an environmental impact statement ("EIS"). On February 28, 2007, FERC issued "Scoping Document 1," ("SD1") which begins the process of determining the breadth of environmental issues FERC must address. In SD1, FERC also announced

Reed Declaration, Aug. 2, 2007

that it plans to issue a draft EIS in November 2007 and a final EIS in April 2008. It is my understanding that FERC plans to issue an order granting a new license prior to August 2008 when the current license expires.

I declare under the penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on this 2nd day of August, 2007.

/s/ Steven Reed
Steven Reed

ATTACHMENT A
of Declaration of Steven Reed

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APPENDIX C: LOW INFLOW PROTOCOL (LIP) FOR THE CATAWBA-WATEREE PROJECT

[C - 1] PURPOSE

The purpose of this Low Inflow Protocol (LIP) is to establish procedures for reductions in water use during periods of low inflow to the Catawba-Wateree Project (the Project). The LIP was developed on the basis that all parties with interests in water quantity will share the responsibility to establish priorities and to conserve the limited water supply.

OVERVIEW

This Low Inflow Protocol provides trigger points and procedures for how the Catawba-Wateree Project will be operated by the Licensee, as well as water withdrawal reduction measures and goals for other water users during periods of low inflow (i.e., periods when there is not enough water flowing into the Project reservoirs to meet the normal water demands while maintaining Remaining Usable Storage in the reservoir system at or above a seasonal target level).

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The Licensee will provide flow from hydro generation and other means to support electric customer needs and the instream flow needs of the Project. During periods of normal inflow, reservoir levels will be maintained within prescribed Normal Operating Ranges. During times that inflow is not adequate to meet all of the normal demands for water and maintain reservoir levels as normally targeted the Licensee will progressively reduce hydro generation. If hydrologic conditions worsen until trigger points outlined herein are reached, the Licensee will declare a Stage 0 - Low Inflow Watch and begin meeting with the applicable agencies and water users to discuss this LIP. If hydrologic conditions continue to worsen, the Licensee will declare various stages of a Low Inflow Condition (LIC) as defined in the Procedure section of this document. Each progressive stage of the LIC will call for greater reductions in hydro station releases and water withdrawals, and allow additional use of the available water storage inventory.

The goal of this staged LIP is to take the actions needed in the Catawba-Wateree River Basin to delay the point at which the Project's usable water storage inventory is fully depleted. While there are no human actions that can guarantee that the Catawba-Wateree

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River Basin will never experience operability limitations at water intake structures due to low reservoir levels or low streamflows, this LIP is intended to provide additional time to allow precipitation to restore streamflow, reservoir levels, and groundwater levels to normal ranges. The amount of additional time that is gained during the LIP depends primarily on the diagnostic accuracy of the trigger points, the amount of regulatory flexibility the Licensee has to operate the Project, and the effectiveness of the Licensee and other water users in working together to implement their required actions and achieve significant water use reductions in a timely manner.

To ensure continuous improvement regarding the LIP and its implementation throughout the term of the New License, the LIP will be re-evaluated and modified periodically. These re-evaluations and modifications will be as determined by the Catawba-Wateree Drought Management Advisory Group (CW-DMAG). **[C - 2]**

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[C - 9]* * * * PROCEDURE

During periods of normal inflow, reservoir levels will be maintained within prescribed Normal Operating Ranges. During times that inflow is not adequate to meet all of the normal demands for water and maintain reservoir levels as normally targeted, the Licensee will progressively reduce hydro generation while meeting Project Flow Requirements. During a Low Inflow Watch or a Low Inflow Condition (LIC) (as defined below), the Licensee and other water users will follow the protocol set forth below for the Catawba-Wateree Project regarding communications and adjustments to hydro station flow releases, bypassed flow releases, minimum reservoir elevations, and other water demands. The adjustments set forth below will be made on a monthly basis and are designed to equitably allocate the impacts of reduced water availability in accordance with the purpose statement of this LIP.

Trigger points that demonstrate worsening hydrologic conditions will define various stages of the Low Inflow Condition. * * * *

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[C - 10] Stage 0 Actions

The Licensee will monitor the Storage Index, the U.S. Drought Monitor, and the Monitored USGS Streamflow Gages on at least a monthly basis and will declare a Stage 0 Low Inflow Watch if any two of the following conditions occur:

a. On the first day of the month, Storage Index is below the Target Storage Index, but greater than 90% of the Target Storage Index, while providing the Project Flow Requirements for the previous month.

b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 0.

c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 85% of the sum of the period of record rolling average streamflows for the same six-month period.

When a Low Inflow Watch has been declared:

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a. The Licensee will activate the CW-DMAG, including the initiation of monthly meetings or conference calls to occur on the second Tuesday of each month. These monthly discussions will focus on:
   - Proper communication channels between the CW-DMAG members.
   - Information reporting consistency for CW-DMAG members, including a storage index history and forecast (at least a 90-day look back and look ahead) from the Licensee, a water use history and forecast (at least a 90-day look back and look ahead) from each water user on the CW-DMAG, streamflow gage and groundwater monitoring status from the state agencies and USGS, and state-wide drought response status from the state agencies.
   - Refresher training on this LIP.
   - Overview discussions from each CW-DMAG member concerning their role and plans for responding if a Stage 1 or higher Low Inflow Condition is subsequently declared.

- The Licensee will reduce the prescribed recreation flow releases at the Wylie Development from 6,000 cfs to 3,000 cfs.

Stage 1 Actions

1. The Licensee will declare a Stage 1 Low Inflow Condition (LIC) and notify the CW-DMAG if:

    a. On the first day of the month, the Storage Index is at or below 90% of the Target Storage Index, but greater than 75% of the Target Storage Index, while providing the Project Flow Requirements for the previous month.

    and either of the following conditions exists:

    b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 1.

    c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 78% of the sum of the period of record

rolling average streamflows for the same six-month period. **[C - 11]**

2. The Licensee will complete the following activities within 5 days after the Stage 1 LIC declaration:

    a. Reduce the Project Flow Requirements by 60% of the difference between the normal Project Flow Requirements and the Critical Flows. These reduced Project Flow Requirements are referred to as Stage 1 Minimum Project Flows.

    b. Reduce the Normal Minimum Elevations by two feet at Lake James and Lake Norman and by one foot at each of the other Project reservoirs, but not to levels at any reservoir below the applicable Critical Reservoir Elevation. These elevations are referred to as the Stage 1 Minimum Elevations.

    c. Update its Web site and Interactive Voice Response (IVR) messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

d. Notify the Federal Energy Regulatory Commission (FERC), the United States Fish and Wildlife Service (USFWS), the United States Bureau of Indian Affairs (USBIA), National Marine Fisheries Service (NMFS), and the Catawba Indian Nation of the Stage 1 LIC declaration.

e. Provide bi-weekly (once every two weeks) information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

f. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol and at Lake Wateree, the Spring Stable Flow Periods and Floodplain Inundation

Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 1 LIC declaration:

    a. Notify their water customers and employees of the Low Inflow Condition through public outreach and communication efforts.

    b. Request that their water customers and employees implement voluntary water use restrictions, in accordance with their drought response plans, which may include:
        - Reduction of lawn and landscape irrigation to no more than two days per week (i.e. residential, multi-family, parks, streetscapes, schools, etc).
        - Reduction of residential vehicle washing.

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At this stage, the goal is to reduce water usage by 3-5% (or more) from the amount that would otherwise be expected. The baseline for this comparison will be generated by each entity and will be based on existing conditions (i.e. drought conditions). For the purposes of determining 'the amount that would **[C - 12]** otherwise be expected', each entity may give consideration to one or more of the following:

- Historical maximum daily, weekly, and monthly flows during drought conditions.
- Increased customer base (e.g. population growth, service area expansion) since the historical flow comparison.
- Changes in major water users (e.g. industrial shifts) since the historical flow comparison.
- Climatic conditions for the comparison period.
- Changes in water use since the historical flow comparison.
- Other system specific considerations.

c. Provide a status update to the CW-DMAG on actual water withdrawal trends. Discuss plans for moving to mandatory restrictions, if required.

4. Owners of Large Water Intakes, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 1 LIC declaration:

a. Notify their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

b. Request that their customers and employees conserve water through reduction of water use, electric power consumption, and other means.

c. Provide a status update to the CW-DMAG on actual water withdrawal trends.

Stage 2 Actions

1. The Licensee will declare a Stage 2 Low Inflow Condition (LIC) and notify the CW-DMAG if:

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...on the first day of the month, the Storage ...dex is at or below 75% of the Target ...rage Index, but greater than 57% of the ...rget Storage Index, while providing the ...ge 1 Minimum Project Flows during the ...ious month.

...the following conditions exists:

...U.S. Drought Monitor Three-Month ...ix Average has a value greater than ...l to 2.

...m of the actual rolling six-month ... streamflows at the Monitored ...eamflow Gages is equal to or less ...f the sum of the period of record ...rage streamflows for the same ... period.

...complete the following activities ...r the Stage 2 LIC declaration:

... prescribed recreation flow ... this stage and all subsequent ...duce the Project Flow

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Requirements by 95% of the difference between the normal Project Flow Requirements and Critical Flows. These reduced flows are referred to as Stage 2 Minimum Project Flows.

b. Reduce the Stage 1 Minimum Elevations by one additional foot at Lake James (three feet total below Normal Minimum Elevation) and two additional **[C - 13]** feet at Lake Norman (four feet total below Normal Minimum Elevation) and by one additional foot (two feet total below Normal Minimum Elevations) at each of the other Project reservoirs but not to levels at any reservoir below the applicable Critical Reservoir Elevation. These elevations are referred to as the Stage 2 Minimum Elevations.

c. Update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

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d. Notify the FERC, the USFWS, the USBIA, NMFS, and the Catawba Indian Nation of the Stage 2 LIC declaration.

e. Provide bi-weekly information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

f. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol; and at Lake Wateree, the Spring Stable Flow Periods and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

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3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 2 LIC declaration:

    a. Notify their water customers and employees of the continued Low Inflow Condition and movement to mandatory water use restrictions through public outreach and communication efforts.

    b. Require that their water customers and employees implement mandatory water use restrictions, in accordance with their drought response plans, which may include:
        - Limiting lawn and landscape irrigation to no more than two days per week (i.e. residential, multi-family, parks, streetscapes, schools, etc).
        - Eliminating residential vehicle washing.
        - Limiting public building, sidewalk, and street washing activities except as required for safety and/or to maintain regulatory compliance.

At this stage, the goal is to reduce water usage by 5-10% (or more) from the amount that would otherwise be expected (as discussed in Stage 1 above).

c. Enforce mandatory water use restrictions through the assessment of penalties.

d. Provide a status update to the CW-DMAG on actual water withdrawal trends.

4. Owners of Large Water Intakes, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 2 LIC declaration: **[C - 14]**

a. Continue informing their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

b. Request that their customers and employees conserve water through reduction of water use, electric power consumption, and other means.

c. Provide a status update to the CW-DMAG on actual water withdrawal trends.

Stage 3 Actions

1. The Licensee will declare a Stage 3 Low Inflow Condition (LIC) and notify the CW-DMAG if:

   a. On the first day of the month, the Storage Index is at or below 57% of the Target Storage Index, but greater than 42% of the Target Storage Index, while providing the Stage 2 Minimum Project Flows during the previous month.

   and either of the following conditions exists:

   b. The U.S. Drought Monitor Three-Month Numeric Average has a value greater than or equal to 3.

   c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 55% of the sum of the period of record

rolling average streamflows for the same six-month period.

2. The Licensee will complete the following activities within 5 days after the Stage 3 LIC declaration:

   a. Reduce the Project Flow Requirements to Critical Flows. These reduced flows are referred to as Stage 3 Minimum Project Flows.

   b. Reduce the Stage 2 Minimum Elevations by seven additional feet at Lake James (ten feet total below Normal Minimum Elevation) and one additional foot at Lake Norman (five feet total below Normal Minimum Elevation) and by one additional foot (three feet total below Normal Minimum Elevations) at each of the other Project reservoirs but not to levels at any reservoir below the applicable Critical Reservoir Elevation. These elevations are referred to as the Stage 3 Minimum Elevations.

c. Update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

d. Notify the FERC, the USFWS, the USBIA, NMFS, and the Catawba Indian Nation of the Stage 3 LIC declaration.

e. Provide bi-weekly information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

f. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol; and at Lake Wateree, the Spring Stable

Flow Periods [C - 15] and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 3 LIC declaration:

   a. Notify their water customers and employees of the continued Low Inflow Condition and movement to more stringent mandatory water use restrictions through public outreach and communication efforts.

   b. Require that their water customers and employees implement increased mandatory water use restrictions, in accordance with their drought response plans, which may include:
      - Limiting lawn and landscape irrigation to no more than one day per week (i.e.

residential, multi-family, parks, streetscapes, schools, etc).

- Eliminating residential vehicle washing.
- Limiting public building, sidewalk, and street washing activities except as required for safety and/or to maintain regulatory compliance.
- Limiting construction uses of water such as dust control.
- Limiting flushing and hydrant testing programs, except to maintain water quality or other special circumstances.
- Eliminating the filling of new swimming pools.

At this stage, the goal is to reduce water usage by 10-20% (or more) from the amount that would otherwise be expected (as discussed in Stage 1 above).

c. Enforce mandatory water use restrictions through the assessment of penalties.

d. Encourage industrial/manufacturing process changes that reduce water consumption.

e. Provide a status update to the CW-DMAG on actual water withdrawal trends.

4. Owners of Large Water Intakes, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 3 LIC declaration:

a. Continue informing their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

b. Request that their customers and employees conserve water through reduction of water use, electric power consumption, and other means.

c. Encourage industrial/manufacturing process changes that reduce water consumption.

d. Provide a status update to the CW-DMAG on actual water withdrawal trends.

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Stage 4 Actions

1. The Licensee will declare a Stage 4 Low Inflow Condition (LIC) and notify the CW-DMAG if: **[C - 16]**

    a. On the first day of the month, the Storage Index is at or below 42% of the Target Storage Index, while providing the Stage 3 Minimum Project Flows during the previous month.

    and either of the following conditions exists:

    b. The U.S. Drought Monitor Three-Month Numeric Average has a value of 4.

    c. The sum of the actual rolling six-month average streamflows at the Monitored USGS Streamflow Gages is equal to or less than 40% of the sum of the period of record rolling six-month average streamflows for the same six-month period.

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2. The Licensee will:

   a. Continue to provide Critical Flows as long as possible.

   b. Reduce the Stage 3 Minimum Elevations to the Critical Reservoir Elevations.

   c. Establish a meeting date and notify the CW-DMAG within 1 day following the Stage 4 LIC declaration.

   d. Notify the FERC, the USFWS, the USBIA, NMFS, and the Catawba Indian Nation of the Stage 4 LIC declaration.

   e. Continue to update its Web site and IVR messages to account for the impacts of the LIP on reservoir levels, usability of the Licensee's public access areas, and recreation flow schedules.

   f. Provide bi-weekly information updates to owners of Large Water Intakes about reservoir levels, meteorological forecasts, and inflow of water into the system.

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g. In addition the Licensee may, at its sole discretion, modify or suspend its use of selected operating procedures that are designed for periods of normal or above normal inflow to optimize the water storage capabilities of the Project, including the Normal Maximum Elevations and Normal Target Elevations for reservoir levels; the Spring Reservoir Level Stabilization Program; the Wylie High Inflow Protocol, and at Lake Wateree, the Spring Stable Flow Periods and Floodplain Inundation Periods. These modifications and suspensions may be used at the Licensee's sole discretion in any Low Inflow Condition (Stages 1 through 4).

Note: Once a Stage 4 LIC is declared, the Remaining Usable Storage in the reservoir system is small and can be fully depleted in a matter of weeks or months. Groundwater recharge may also contribute to declining reservoir levels. For these reasons in the Stage 4 LIC, the Licensee may not be able to ensure that flow releases from its hydro developments

will meet or exceed Critical Flows or that reservoir elevations will be greater than or equal to the Critical Reservoir Elevations. [emphasis in original]

3. Owners of Public Water Supply intakes and owners of intakes used for irrigation with a capacity greater than 100,000 gallons per day will complete the following activities within 14 days after the Stage 4 LIC declaration:

    a. Notify their water customers and employees of the continued Low Inflow Condition and movement to **emergency** water use restrictions through public outreach and communication efforts. **[C - 17]**

    b. Restrict all outdoor water use.

    c. Implement emergency water use restrictions in accordance with their drought response plans, including enforcement of these restrictions and assessment of penalties.

d. Prioritize and meet with their commercial and industrial large water customers to discuss strategies for water reduction measures including development of an activity schedule and contingency plans.

e. Prepare to implement emergency plans to respond to water outages.

At this level, the goal is to reduce water usage by 20-30% (or more) from the amount that would otherwise be expected (as discussed in Stage 1 above).

4. Owners of Large Water Intakes on the CW-DMAG, other than those referenced in item 3 above, will complete the following activities within 14 days after the Stage 4 LIC declaration:

a. Continue informing their customers and employees of the Low Inflow Condition through public outreach and communication efforts.

b. Request that their customers and employees conserve water through

reduction of water use, electric power consumption, and other means.

c. Encourage industrial/manufacturing process changes that reduce water consumption.

d. Provide a status update to the CW-DMAG on actual water withdrawal trends.

5. The CW-DMAG will:

a. Meet within 5 days after the declaration of the Stage 4 LIC and determine if there are any additional measures that can be implemented to:
   (1) reduce water withdrawals without creating more severe regional problems;
   (2) reduce water releases from the Project without creating more severe regional problems; or
   (3) use additional reservoir storage without creating more severe regional problems.

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b. Work together to develop plans and implement any additional measures identified above.